AMERICAN FARMERS' MAGAZINE.

VOL. XII. MAY, 1858. No. 5.

Agricultural.

HINTS FOR YOUNG FARMERS AND OTHERS.

MAY, glorious May, the best month, we suppose, in all the year at the South, and certainly the best in the North, except its successor, more glorious June, has at last come. We have waited for it through a winter as long as usual, though not as cold, and are glad to see it here with its flowers and its promises of fruits, its mild breezes and its charming sunshine.

We need not exhort the farmer to turn out and breathe its exhilarating influences without a wall, or a pane of glass even, between him and the wonderful, elevating, gratitude-begetting works of his Creator. He is out before us, out of necessity, out by a blessed privilege of his calling. Let him not forget that he ought to be the happiest and best of all; and that if he ever envies others of different callings, it is only because he has not the experience of their trials.

If the wives and daughters of the farm homes will accept a homely hint at our hands, we will say to them, what we need not say to their husbands and sons; —be out, breathe the May airs, strengthen your physical nature, and elevate your spiritual by a free communion with nature. Know what the "men folks" are doing, and take an interest in it. Nature is beautiful, lovely, exquisite. But left to herself she is wild, erratic, extravagant, little inclined to the useful. It is the business of your other halves—whether better halves or worse, we can not now inquire—to train and direct her powers to the practically useful — to make her grow sweet roses, sustaining food and luscious fruits, where if left to herself she would produce only tangled underbrush and fruitless trees. What an avocation is his! Can women be indifferent to it? Slanderous thought! We put it behind us.

But American women have not yet sufficiently informed and instructed themselves in the affairs of the farm Earnestly but kindly we say to you, let it not be so always. Give yourselves the great benefit of a little more out-door exercise, and your husbands the benefit of feeling that you sympathize with them in their labors, and rejoice with them in their successes. You know that farm work should be done well and handsomely. There is a right way for doing any thing, and there are

a great many wrong ways. Good sense and sound judgment are the traits in which farmers are apt to excel. An eye to the beautiful in laying off lands and finishing up jobs, can add to the pleasure of their labors without subtracting at all from the profit. If your husbands found you admiring some of their doings, but dubious about others—about twice as ready to see and admire what is pretty and nice in your eyes as to find fault with what is otherwise—it would really do a them deal of good.

Woman's taste should have something to do with the landscape her husband is creating. It is common property for both to look upon. Man's strong tendencies towards the useful, coöperating with woman's keen perception of the beautiful, could hardly fail to arrive at good and pleasant results. In the location of buildings, in the general appearance of the homestead, in the management of the garden, on the question whether the highway through the farm, with the exception of the drive, shall be a neat and tidy lawn, or an "omnium gatherum" of all that is foul and ugly, and on various other points of common interest to the whole household, woman's taste should be consulted, and should not shirk the responsibility of expressing its choices. Aye, many an unseemly spot would assume new beauty and fertility if the "women folks" oftener manifested a modest wish about the out-door matters.

But we turn to the lords of the soil. Is your garden made? We hope so; and we hope you have it neatly laid out, and tastefully fenced, with walks here and there as convenience requires, and the small fruits, such as gooseberries and currants, and such early vegetables as radishes, lettuce and the like up and growing.

And then the manure, unless you have reserved some for composting for the corn hills, should all have been out before this time, mingling with the soil, and working its effects for the coming season. Everything that can add fertility, should be removed from the possibility of vitiating the air to be breathed through a long summer by the household. The farmer can not afford that his family should breathe bad air, because he wants for his fields all that produces it, whether in cellar or garret, in chip-yard or barn-yard, in vault, sty or stall. For field's sake and health's sake, let the premises be immaculate now; let the very sod be clean; and let the grass be growing, with nothing to impede. If we could have a green sod about us here in the city, what volumes of ammonia and other poisonous gases would the growing grass absorb, to make it green instead of making us pale by inhaling it! Don't forget to remove every particle of decaying vegetable matter from the cellar. In February we told you that more than half of the fevers that sometimes afflict families in regions generally healthy, come from the cellar. Eminent physicians have since told us—some have even taken the trouble to write us—that we were true to the letter; and that if we could only persuade all to ventilate their cellars by windows opening on opposite sides, and to keep them well cleaned, we should save thousands of lives.

But to the fields. We spoke largely of the potato crop in our last, and in terms which we believe commended themselves to thoroughly observant farmers. A curious narrative has since been given us, about a remarkably fine crop from remarkably bad seed. The man relating it had a suitable piece of ground well prepared for planting. But lo! a faithless servant had stolen and sold his seed potatoes. He applied to a grocer near by for ten bushels, but was informed that he had none except refuse potatoes—very small, such as had been thrown out as he had served his customers. Enraged at the loss of the seed he had selected the fall before with much

care, and in haste to finish his planting, he put in the grocer's small refuse potatoes, cultivated well, and had an uncommonly fine crop. We have not one doubt of the truth of the statement, because we have seen just such cases before, and because we know the man and can rely upon his word. It is a fact beyond all doubt, that remarkably fine crops have been obtained from very unpromising seed. Still, if there is no imperative reason for using such seed, if medium sized potatoes, sound and healthy, can be obtained at no very exhorbitant price, and planted whole, one to the hill, that is the safest way. Potatoes are not an exception to the general rule that good seed is more likely to produce a good crop than bad.

Indian corn is a more important crop than potatoes. To American agriculture it is of more value than any other. The crops of this grain have varied in past years from less than one to more than a hundred bushels, shelled corn, to the acre; and modes of culture have been practiced which might be expected beforehand to thus vary the results. The smallest crops, of course, have not paid for the cultivation; and probably the largest have not in every case given the greatest net profit. A question arises here;—what is the amount we should seek to obtain per acre? Some would say, the largest amount possible. We like to see a monster crop of corn; and if any farmer could show 150 bushels of shelled corn from a single acre in one year, we would go far to see it, and we should be willing that he should receive a big premium from the agricultural society, although it may have cost him more than it is worth, because we believe there is a benefit in testing the utmost power of manure and soils to produce. But we certainly could not wish that the bone and sinew of the country should be exhausted in growing crops, worth less, however large, than their cost.

The true answer to the foregoing question, we suppose to be, that we should never aim at a small crop, and not always at the largest possible, but to such as can be cultivated with the greatest profit on the quality of land we have to cultivate. If the land be of the highest capability, and near a city, whence manure can be brought cheaply, if cultivated with corn (other crops in that case would be more profitable) nothing less than a hundred bushels, shelled corn, to the acre should be thought of. If, on the other hand, the soil be light, of small capabilities, far from market, where no manure can be bought, and none except the portable can be transported, twenty-five bushels to the acre might be doing well. If this could be obtained by the use of 300 lbs. of guano, or a like weight of superphosphate, and but little labor, you may take out interest on the value of the land, the price of the guano and labor, taxes and something for fencing, and have a profit left.

Taking into consideration the quality of the land, its value, its location, the ease or difficulty of procuring manure, and the market facilities, we believe that no man ought to plant an acre of corn with the view to getting less than twenty-five bushels; and that, *for the sake of profit*, no one should aim at more than a hundred. In farming for a premium, or for fame and notoriety, we may aim only at the maximum crop. But farmers who expect to live by their business, will look for the maximum profit, and that very wisely as we think. Each will inquire what is the most profitable amount to grow on his land; and the answer will vary—25, 33, 50, 75, 100 bushels to the acre. The first is 200 fold on the seed necessary; the second, 264 fold; the third, 400 fold; the fourth, 600 fold; and the last, 800 fold—so many bushels gathered for one planted. We have dwelt on the matter of maximum profit, because we believe it is one which every farmer should study with reference to his own land.

The way to do it. On thin, light, plain land, (not so near a large city that it ought, at any required expense, to be *made into* good land, by deep plowing and thorough manuring,) we would say, plow six inches deep; apply—plowing it under—300 to 500 lbs. of Peruvian guano; harrow lightly; furrow four feet each way; drop a single handful of ashes at the crossings; and plant 4 kernels of corn in the hill. We are satisfied that nothing is gained by planting any but the smallest varieties at a less distance than four feet. Dress the crop three times, doing the work mostly with the cultivator or horse hoe. The first dressing should be as soon as the plants are up five or six inches; the second twelve or fifteen days later; and the last not after the first of July. Nearly level cultivation is the best for such a soil. As to the time for planting, no rule can be given for all latitudes. It may vary within our national domain all the way from the first of March to the last of May.

One principle will hold good everywhere;—corn depends more than almost any other crop upon a good start, and a good start is a sudden start. It is not wise, therefore, to plant before the ground becomes warm, and is likely to continue so. Hence the value of ashes in the hill. Their action is to warm the adjacent soil, and to throw the plants into a healthy, growing condition; and hence also the reason for waiting till the 15th, and, in some cold seasons, till the 20th of May, rather than not have a warm soil and a quick start. Some plants will linger weeks and months with cold soil and cold air, and then become very thrifty after warmth comes; but if corn is kept thus lingering it never becomes as thrifty as it otherwise would. We believe it should be planted the first moment the ground is warm and there is a reasonable expectation that it will remain so, and that this is about as definite a rule as can be given.

But suppose your soil to be of a better quality, and such that you would not be contented with twenty-five bushels an acre, and to lie conveniently for the application of a heavy compost. We would say, plow once and a half as deeply as before recommended, and apply barn manure composted for the purpose, as hereafter to be stated. If the soil be rather light, it is as well to plow in the manure, provided you will plow again and harrow smartly, so as to mix it pretty evenly through the whole soil.

We do not believe in leaving manure in one stratum, at the bottom of a furrow eight or ten inches deep. Whatever the soil is, it should be mixed throughout as evenly as may be. And if the soil be a pretty fair loam, what would be called fair corn land, we believe that harrowing in the manure is quite as good as plowing it in. That part of the manure which consists of insoluble salts works downward. The soluble salts tend downward rather than upwards; and such land as we are now speaking of has sufficient strength to hold the ammonia from escaping into the air.

Depth, in depositing manure, is not so much to be regarded as distribution, mixture, thorough incorporation with the soil.

The compost we are about to recommend, will not be new to those who were our readers several years ago. To them it may be well to have their attention again called to the subject; and to others we trust it will be valuable.

Wherever black swamp mud abounds, as it does almost every where, the farmer should always have large quantities out, sunned, aired, washed with the rains of six months or more, and ready at all times to be put into the stalls, pens, or yard, as an absorbent, or to be composted with barn manure on the cornfield. It is of little value to apply in a fresh, uncured state, but of great value if cured as above stated. If a bushel or two of shell lime, or one of stone lime, were

mixed with it soon after being dug, it will be more perfectly cured of its sourness, and its fertilizing value greatly increased. We believe that its immediate effects are greater on the corn crop than on any other, because corn is a gross feeder, that is to say, it will convert into food and absorb as nutriment coarse, half-decomposed manures more rapidly than most plants.

We know of no way in which corn can be grown at a profit better than the following, wherever the materials are at command, and we contend that they should be at command wherever corn is to be grown on land not abounding in organic matter, provided the swamp mud can be obtained at no great distance from where it is to be used. We say on land not abounding in organic matter. Of course we would not recommend this compost for rich prairies. They already contain essentially the same thing, contain it in too large quantities even for some crops, so that several crops of corn are often grown on the same field, in order to use up this organic matter before wheat can be grown to advantage. Nor would we recommend this compost for peaty soils. It would be too much like carrying coals to New Castle. But for gravelly, loamy, or clayey soils, not over-stocked with organic matter, we do not believe there is any dressing as good for corn, relatively with its cost.

It is this;—take, about the last of April or the first of May, a load of well-cured swamp muck to a load of green barn manure and compost them together. The muck should have had a bushel of lime composted with it last fall, and laid in a large heap over winter. But if that was not attended to in time, add the lime now; and add at the same time a bushel or two of ashes for each load of muck; also common salt enough to give five or six bushels for each acre after applying as much of the compost as you intend; and add also plaster sufficient to give from one to two bushels to the acre.

If you can not conveniently obtain all these ingredients in the hurry of planting time, use such as you conveniently can, only do not fail to put in the lime, as it is this especially that tends to change the muck from an inert to an active state, so that it will influence the present crop instead of lying a year or two inert in the soil, as it often has, and thereby given many farmers the impression that it is of little or no worth. Understand that we are not making an impyrical prescription, so many grains of calomel to so many of jalap. That is the doctor's business, not ours. We are trying to show you, without being troublesomely particular, how you may prepare a cheap dressing for the corn crop—one that will be about certain to give you a rich return next autumn, and quite sure to leave your land in good condition for after crops. The difference between this and some light portable manure, as guano or superphosphate, is, that although the latter might give as good immediate returns, the former lays more effectively the foundation for future success. We would rather see our farmers paying their money for labor done on the farm, than for fertilizers brought from other countries; because we believe that between the home expenditure of crops and the gathering up and saving of the home fertilizers, the farm (as a general rule, not without many exceptions) must be made to enrich itself, or in other words must be made and *kept* rich without sending much money abroad for fertilizers.

But to return to our compost. We would have the load of muck, the load of manure, and the other ingredients, or so many as you choose to employ, well mixed together in the yard or on the field, as you find most convenient. The manure should be sufficiently urinaceous to insure a pretty speedy fermentation, say within ten or twelve days. To this end it should be laid as lightly as may be, and if there is strawy matter in the

manure, not too long and coarse, it will aid the process as the air will more readily circulate among it. If the fermentation becomes too violent, so that fire-fanging is likely to take place before your ground is ready for planting, it may be necessary to check it by forking the pile over, though this is an extra labor that can generally be avoided, either by hastening the time of planting, or by crushing down the fermenting pile so as to exclude as much as possible the circulation of air, and thus checking the process till the time for planting.

The object should be so to time the operation that the compost may be applied in a heated state, and immediately covered in soil. Like yeast it will then communicate its fermentation to such organic matter in the soil as is capable of fermentation, warming the soil and inducing a quick germination of the seed, and a healthy, early growth—a point more important to the corn crop than to any other.

How this compost should be applied, and how much to the acre, are two questions on which we have not much to say, because in some respects every farmer knows his own business much better than any one can tell him. For ourselves we would plow it in six or seven inches, and then harrow smartly with a long-toothed harrow, if the soil were a rather light loam; but if a heavy loam, we would sooner spread on the furrow and only harrow in; and if we had a few ashes to put in the hills, we would apply the whole thus; but if not, we would reserve six or eight loads to each acre for the hills, dropping the seed in it while yet warm, and covering it immediately. Nothing is better adapted to giving the plant that vigorous outset so favorable to this crop. As to the quantity, it is safe to say the more loads to the acre the more corn. Most farmers, we believe, are now convinced that it is better to have a large crop on a few acres than a small one on many, that is, if their land is of a fair quality, and so situated that they can afford to lug heavy, bulky manures to it. But circumstances, known only to the farmer himself, have a controling influence.

We can imagine circumstances in which we would apply as little as ten loads of this compost to the acre. There is many an acre of lightish loam which, with no manure, would give less than twenty bushels of corn, but would give more than forty, with ten loads of this. In other circumstances we might apply as many as a hundred loads to the acre; and would do it with a feeling of all but certainty, that we should get at least a hundred bushels of corn, and what is more, get back the whole cost of the manure in the next three crops. But either of these quantities would seem to most farmers extravagant, the first too small, the last too large, and probably they are so with regard to general practice. Thirty loads to the acre will be likely, on medium corn land not badly reduced by previous cropping, to give at least sixty bushels of shelled corn. We would expect fifty loads on the same land to give from eighty to ninety bushels, and to leave the soil in a highly valuable condition for future crops. Let it not be understood that we are recommending this process for growing corn to all, without regard to climate, location, soil, etc. We are well aware that the farmers on our broad, western prairies would laugh at the idea. In future years they may come to it. But undoubtedly they think the time is not yet, and we presume they are right. So at the South, if the farmers can grow broad fields of corn at a profit with only a few hundred pounds of guano or superphosphate, (and they are certainly the best judges,) they will of course be slow to adopt a more laborious process. But in many of the older portions of the country, where pretty heavy manuring has become a necessity, and where the farmers are not yet convinced of the benefit of neglect-

ing home fertilizers to purchase foreign, we think our suggestions will be tried, and that they will be valued in proportion as they are fairly tested. It is no new thing which we propose. If we had not seen the practice in a great many cases, and seen its good results, we would not recommend it. Our suggestion of putting quick lime with barn manure, will frighten some. But let them consider that we present an antidote. The swamp muck will not fail to retain the ammonia, which the lime might otherwise drive off from the barn manure.

We feel that our subject is a plain, homely affair. The season might suggest more flowery subjects, and a more flowery way of treating them. But if we are understood, and if our suggestions shall lead to the production of increased crops at a diminished cost, or with an increased value of the soil for after cultivation, we shall be satisfied.—Ed.

A NEWLY COINED NAME.

The editor of the *Michigan Farmer* shows himself amusing and classical, as follows:

During March we were among the *Hippomachs*. Don't start, dear reader, we did not go to a foreign country to find them, there is any quantity of them in Michigan, native and indigenous to our soil. The Hippomachs mean the *horse-disputers*. We have coined the word from the Greek *hippos*, a horse, and *macho*, an altercation, a contest, a dispute. Nothing short of the dead languages should give a name to a set of men so nervously alive as the advocates of the various equine tribes. To call them "horsemen," or to speak of them as "all horse," or to designate them as "horsetalkers," is too inexpressive and unjust. In the first place to call them "horsemen," is a perversion of the word as defined by Noah Webster, for whose judgment we have much respect, as hardly one of the hippomachs ever rides or puts foot in stirrup. Second, the hippomachs are not "all horse," as many of them take as much interest in cattle and sheep as they do in horses, and are to be heard with respect when they discuss those subjects. Third, "horsetalkers" would be derogatory and unjust, and would make them appear to be narrow minded and one-sided, as they would thus be always placed among the "neighs." Hence we believe that *hippomach*, as a term logical, dignified, classic in origin, and extremely expressive, as referring to a class of men who discuss matters connected with horses and breeding, is a word that should be adopted at once into the great American language, which is one day to be spread by the legitimate expansive force of our institutions, from Bhering's straits and Baffin's bay to Cape Horn.

If the aforesaid editor intends to apply this Greek compound to that class of men who are earnestly endeavoring to improve our horse flesh, who seek to establish improved races, and only differ *honestly* as good and true men always will about matters of so much importance, while all are aiming at the same end, that of producing races of great excellence for the various purposes of life, we must needs doubt the correctness of the application.

We want horses for the road, for the field, for heavy teaming, and for the saddle. It is well to have all these *specialities* in view. But most of all we want horses *for all work*, because, although the European nobleman may be able to keep a dozen horses for each of the various purposes that noble animal is put to, the American nobleman, on his farm of two or three hundred acres, finds it more compatible with his notions of thrift to keep one or a span, and to train that one horse or one span to all kinds of work.

The one horse, if but one is kept, should be able to carry a bag of grain to the mill on his back, with a stout boy on top of it, or to draw it in a lumber wagon; to take the whole family to church "of a Sunday;" to plow among the corn; to carry his master or mistress in the family carriage, to an afternoon or evening's visit; to carry the girls on a side-saddle, and learn to be proud of his charge, for we hold that the future mo-

thers should have rode a great deal on horseback; in short to do anything that horse ever did, and to be about anything that horse ever could—good in the harness and good under the saddle, good every where, and withal good looking enough to make his owner proud of him, for we believe it to be a sin not to be a ittle proud of a well bred and well kept horse, and that, too, although his breast and sides may show marks of faithful service.

But if we are to have horses good for special works, and good for all work; not intolerably fast, nor unendurably slow, but just about right; horses to be proud of, to love, and to show kindness to; and to be grateful to the Almighty for as often as we enjoy their immense utilities, it is no wonder that there should arise differences of opinion as to breeds and breeding, rearing, training, &c. That one honest, earnest seeker for a high development of this noble animal should pursue one line, and another pursue a different line, and that pretty warm contention should spring up, is no marvel. It would be marvelous if it were not so. Good will come out of it; and the result will be, we hope so at least, to give us ere long every possible variety, and the highest possible utility of the equine race.

We rather object to the designation, given by our brother editor out West, to men, who, though on different tracks, may all come out well; and since according to the best recollection of the little Greek that was whipped into us in boyhood, the term is a little reproachful, though we know our western brother did not mean it so, we would reserve it for another class of personages. If we mistake not, there are men among us, who would monopolize our fairs, national, state, county and town, for the horse—no, not for the horse, but for themselves. They care not a fip for the oxen, the cows, the sheep. What is meat for the poor to them? Let who can get milk, butter and cheese. Clothes for all are of little account. And how posterity shall fare in consequence of our doings is quite too remote a thing for them to think of. They want to be cock of the ring to-day, and let to-morrow take care of itself.

Meantime, a good, honest, hard-working farmer—a plain man to be sure, with nothing to recommend him, except that he is one of the best and most useful men in all the country, a trifling recommendation no doubt in the eyes of the horse gentry—has brought up a splendid herd, from a distance of perhaps a hundred, or it may be of five hundred miles. Another has brought far over hill and dale the cows of a magnificent dairy, with beautiful samples of their products; another has brought a flock of sheep, that ought to make us all, M.C.s, and downwards, and upwards too, ashamed of ourselves, that we have hitherto so slighted that important source of national wealth and comfort.

Anybody, whose soul is not narrower than the tip end of nothing, can see that these cattle and sheep men are doing a good thing, actually laying the country under obligation to them, a blessing to their contemporaries and to posterity.

But no matter. Let the herds lie in their stalls, and long for a beholder. Let the flocks display their fine fleeces and goodly proportions for the sun to look down upon. Let the stirling farmer, who has brought them from his far-off home, sigh for a little notice. No matter, the farmers are a very tame set of men—so the fasts think. If they bite their lips a little with chagrin, they will get over it before another year. Will they? We are not so certain of that. If the farmers who are going ahead in the way of fertile farms well stocked, should always be willing to stand in the back-ground at their own fairs; if they should contentedly see all the large prizes carried off by the owner of a horse, that has no earthly merit, ex-

cept that of being as impudent as his master, and scrambling by the crowds on a smooth surface, and with a very light load, faster than any decent horse could; if, in short, the horse, without much regard to real, solid worth, judged only by a capricious, gambling spirit, is to be everything, to fill all eyes, and take all prizes, while his *confreres* of the homestead, the ox, the cow, the sheep, and swine, may as well ruminate and root at home, we have some misgivings, whether the farmers will always bear it patiently.

The ox is patient. His driver is apt to be patient, and it is a great virtue. But we remind the earnest, working, improving farmers of the country—those who desire fair play, and an improvement in all branches—that there is a point beyond which virtue turns to vice; and we advise them to be patient under the horse mania, just as long as is best, but no longer. We think they will be pretty good judges where that point is.

We propose that the 2. 30 men—those who insist upon all eyes, all ears, and all money, at our shows, for their favorite animals, who care not a picayune for the great agricultural interest of the country; who despise honest labor, and if they work at all, would sooner *work down* a bumper, than work up a foot of soil—be called *hyppomachs;* and that our Western friend, who, we presume, remembers more Greek than we do, should coin another term for the men who are striving to improve the horses of our country, and only differ, as good men always will, in matters of importance, about the best means to accomplish the object.—Ed.

For the American Farmer's Magazine.

NOW.

BY N. O. W.

Now! Let us improve the present moment while we are sure of it. "Put not off till to-morrow what can be done to-day." When the thought to do a piece of work enters the mind, proceed at once to put it into execution. You may forget to do it until too late. For instance, a man comes home in the night, and in the cold, forgets to draw the sleigh into the barn. He discovers his forgetfulness in the morning, and says to himself, "When I return from my work I will draw the cutter in." In returning he passes by the spot, but is in a hurry to do something else. Next time he passes he has plenty of time, but thinks some other time will do as well, and so the sleigh remains until a fall of snow fills it and covers up the buffalo robes. In the morning the farmer wishes to go to town and finds his robes all wet, and the snow to be shoveled out of the sleigh before he is ready to start. He is forced to ride on a wet seat, and takes a violent cold. No great damage done, to be sure; but even this trouble could have been avoided by obeying the impulse of the mind, and doing *now* what was thought to be as well done some other time. If you are at loss when to do a piece of work, if possible do it *now*. Putting things off, and doing things "for the present," are some farmers greatest faults. N. O. W.

Antrim, Mich., 1858.

SUMMER FALLOWING, ETC.

A Californian, in the California *Farmer* for March 19th, thus goes in for summer fallowing, deep plowing and subsoiling. If the old globe we inhabit were not considerably large, there would be danger of his plow point meeting those of the Chinese in the other hemisphere.

FACTS ABOUT FARMING.

Messrs. Editors:—I now beg leave to say, through your most valuable paper, a few things in reference to wheat and grain-growing in this part of the State. When I first came to this country, in 1852, I advocated that it was all-important to plow our lands in the spring season for the next year's crop, and was met by this objection: that in this, California, the seasons were dry and

hot, and the lands would be injured by the great drought and heat that prevailed in the summer season; therefore it would not do to plow and leave the ground so exposed, destitute of a covering by some kind of crop. Notwithstanding the argument made, I was desirous to know if such was the fact. I was inclined to dissent and differ in opinion from such notions. So in the spring of 1853 I tried the experiment, this being the first spring I had enjoyed in this State. The result was most astonishingly satisfactory. The ground so plowed was sown in December, fall of '53, and the yield was one-third to one-half more than the same land sown the same day, that was only then just plowed; and those of my neighbors who had opposed this mode of farming, acknowledged their error and began to spring-plow to some extent.

Yet too little attention is paid to this branch of farming, so far as regards spring plowing, as I have stated to you and your readers in former years. And here let me say to your many readers that there is another serious evil in regard to plowing: Often the rains do not come until late in the season, and then not in sufficient quantity to wet the earth properly for plowing; yet the work is commenced, and hurried along with, in a very indifferent manner, and often, too, when the ground is entirely too wet on the surface and not to a sufficient depth. Often the land is cold and unfit to receive the seed sown, and is generally not plowed more than two and a half to three inches deep, and at this season of the year the crows and birds are very troublesome and get a great amount of seed. The result is a light crop, and not sufficient to reward the laborer for seed, time and money expended.

Now let us take another view of this subject. Suppose we all try one acre, if no more; plow in the spring, say this month; get one of Thos. Ogg Shaw's plows, made in San Francisco, large size, say the largest size; put it to three or four yokes of oxen, and plow from twelve to fourteen inches deep; two to three pairs of horses will do as well; and then sow seventy-five pounds of good clean seed in the month of September next; use a cultivator to cover with, or harrow well, then use a heavy roller to smooth down with, which will put the ground in a good condition to harvest and prevent the birds from getting much of the seed, also it will endure more drought; as also it does not take as much seed to sow early as when sown late, for the first rains are generally warm, the grain readily comes up and is not liable to suffer for want of rain during winter.

Now, friend farmers, if you will make the trial this once, and find me in error, you may publish my name to the wide world as a quack, and writing what I do not know to be a fact. And if any of you think I have not made reasonable statements, please call on me at my ranch, and I think the vail may be removed from your eyes. Last season I began to plow for fallow on the 10th day of January, and continued until the dry season forbade plowing. In the month of September I commenced sowing my fallow grounds. The first piece was sown in barley; on the first day of this month the heads began to put forth, and notwithstanding for the last six weeks we have had only one light shower, the promise is good for a crop, and a good crop. On the first days of October I began to plant wheat, this also bids fair for a good crop; and all the lands that I plowed in the fall, and some of them sown on the same day that some of the fallow was, do not bid as fair for a crop, not being more than half the growth.

Here let me state that this fallow land was plowed from six to eight inches in depth. This season I obtained at the State Fair, from T. Ogg Shaw, one of his largest sized steel plows, fourteen-inch cut. It is also a deep tiller; I use with it a team of four horses, and when the ground is sufficiently wet, plow thirteen to fourteen inches deep. If any doubt this, please call, and I will satisfy you on this point. In addition to this I have used a subsoil to some extent, and put that down thirteen inches below the bottom of the plow. And I am satisfied, from actual experience, we can not till too deep. The deeper we till the more rain the land will endure and withstand the greater drought. Yet I wish to be distinctly understood, that although we may plow early, sow soon, plant good seed, and on good ground, yet if we have no fence or that which is not good, or good for nothing but to make breachy stock, our labors will be in vain.

ORDER AND ECONOMY ON THE FARM.

Without order on the farm, peace of mind, success and profit are impossible. Watchfulness and care are implied in this forcible word, *order*. Who is the farmer that does not know of serious accidents happening to animals and crops for want of proper care? Some farmers are negligent of their animals when at grass, as if no accident could happen. We once knew a most excellent horse to get on his back in the furrow of a pasture field that was "seeded down" with a grain crop grown on "lands" or ridges. Sheep of good quality (and what farmer should grow any other) are liable to meet with similar accidents—so, too, to be injured by dogs, etc., and for which *care* seems, after all the experiments that have been made, to be the best remedy.

The farmer should not allow his cattle that are used in his farm work, to be scattered indiscriminately over his fields. In the most busy season it often happens that a great deal of time is lost in catching working animals that are let out on pastures while the men eat dinner. In the heat of a hot day, as at noon, horses and oxen would do much better in the stables if supplied with green food. For such purpose no farmer should be without the necessary quantity of clover to be used as soiling. We do not refer to that grown on meadow land with grasses, but to clover produced on meadow land *heavily manured*. Such clover will be succulent, and while it furnishes a highly nutritive feed for working animals, it prevents them from having a desire to consume large quantities of water. Clover grown in the manner referred to, would produce the second season three crops. After each cutting it should be heavily top-dressed. If the pastures are bare from being over-stocked, or parched by the heat of summer, the cattle should be fed clover or other soiling. The value of it for increasing the quantity and quality of milk and butter, will soon be understood by any person who pursues such a course. This system of practice has its influence in *saving time*. If the fences are bad, or that cattle roam in the woods, by the feeding of special green food in a particular place, thus causing cattle to come in search of it, much time may be saved. We know of a shiftless, disorderly farmer—and perhaps there are others as well as he—who drives his cattle three or four miles to be milked, often when above their knees in mud. He has several horses to spare, and milk cans growing rusty for want of use. He does not estimate the loss arising from such a practice. His cattle travel in coming home twice a day to be milked, and returning to the pasture, make four journeys equal to twelve miles—when the roads are muddy the labor is much increased—the feet of the cattle become subject to disease—while traveling they are not feeding, and consequently not supplying the raw material from which to make flesh, milk, or butter—they dung on the road and its manurial effects are lost to the pasture—and in addition to these losses, arising from carelessness or a want of "order upon the farm," the time of a man or boy is also lost in making the journeys referred to.—*Working Farmer.*

DEEP PLOWING.

We are all too apt to follow blindly in in the beaten track. The first plow was a tough, forked stick, whereof one prong served as a beam, while the other dug the earth as a coulter. Of course, the plowing was only scratching—necessarily so. It would have been preposterous to expect the plowman of Hesiod's or of Virgil's time to turn up and mellow the soil to a depth of fifteen or sixteen inches. Down to the present age, plowing was inevitably a shallow affair. But iron plows, steel plows, subsoil plows, have changed all this. It is as easy today to mellow the earth to the depth of two feet, as it was a century ago to turn over a sward to the depth of six inches. And our fierce, trying climate, so different from the moist, milder one of Great Britain, Ireland, or even of Holland and the Atlantic coast of Germany, whence our ancestors migrated, absolutely requires of us deep plowing. Drouth is our perpetual danger. Most crops are twenty to sixty per cent. short of what they would have been with adequate and seasonable moisture. That moisture exists not only in the skies above, but in the earth beneath our plants. Though the skies may capriciously withhold it, the earth never will, if we provide a rich, mellow subsoil, through which the roots can descend to the moisture. The hotter and dryer the weather, the better

our plants will grow, if they have rich, warm earth beneath them, reaching down to and including moisture. We can not and we need not plow so very deep *each year* to assure this, if the subsoil is so under-drained that the superabundant moisture of the wet season does not pack it. Under-draining as the foundation, and deep plowing as the superstructure, with ample fertilizing and generous tillage, will secure us average crops, such as this section has rarely ever seen. Our corn should average from fifty to seventy bushels per acre; our oats still higher. Every field should be ready to grow wheat if required. Every grass-lot should be good for two or three tons of hay per acre. Abundant fruits, including the grape and the pear, should gladden our hill-sides, and enrich our farmers' tables. So should our children seek no more, in flight to the crowded cities, or to the wide West, an escape from the ill-paid drudgery and intellectual barrenness of their fathers' lives, but find abundance and happiness in and around their childhood's happy homes.—*Horace Greeley.*

LIVE AND DRESSED WEIGHT OF ANIMALS.

The following rules for computation, which we believe to be accurate, and which may be of use to many of our readers, we cut from the *Ohio Cultivator:*

1st. For finding the net weight of stock, etc., where one-fourth is taken out, or allowed for tare.

Rule.—Multiply the gross weight by the decimal 8 tenths, and the product will be the net weight.

Example.—Suppose a farmer has a hog that weighs 345 gross, how much will he weigh net? 345X.8—276.0. Ans.

2d. To find the gross weight, having the net weight.

Rule.—Divide the net weight by the decimal 8 tenths. and the quotient will be the original gross weight.

Example.—What is the gross weight of a hog that weighs 345 pounds net? 345–:–.8—431¼. Ans.

3d. To find the price per hundred net, where the price per hundred gross is given.

Rule.—Divide the price per hundred gross by the decimal 7 tenths, and the quotient will be the price per hundred net, and *vice versa.*

Example.—How much per hundred net will a farmer get for his hogs, who sells them for three dollars and forty cents per hundred gross? $3.40–:–.8—$4.25. Ans.

Thus it will be seen that $3.40 gross, is the same as $4.25 net. The reasons for these are obvious; comment is therefore unnecessary.

For the American Farmers' Magazine.

ON THE CORN CROP, AND THE RIGHT SPECIES OF CORN FOR THE RIGHT LOCALITIES.

My method of raising corn is: I take an old meadow or pasture that wants plowing up, and if there are any places that appear rather barren, I put on a few loads of barn-yard manure, (but the most of my manure I generally put on my meadow.) In April I generally plow or break up the corn ground. If not convenient in April, I generally try to have it done by the middle of May. I generally intend to plow seven inches deep; a few days before planting, drag thoroughly, and immediately before planting drag again, so that the ground is as mellow as an ash-heap, and mark so as to plant three feet each way, and sometimes three and a half each way. I generally try to plant by the 25th of May, and if the weather will admit, as early as the 18th or 20th, and as soon as the corn is up plaster or ash, and a few days after go through with the plow or cultivator, and go through with hoe and take out the grass and weeds, and place a little fresh dirt around each hill, and a few weeks after plow and go through again, only not hill up much the last time. Plowing here comes generally the first week in July. I cut my corn down by the roots five rows at a time, by taking four or five hills for the middle of the shock, and after the middle generally put fifteen hills to it, so as to have twenty in all, and put one band around the top and another around the middle of each shock, and let them stand from four to six weeks before

husking. In husking we generally select our seed corn by taking all the soundest and largest ears, and leave a few husks on each ear intended for seed, and braid a number of ears together and hang them in some dry, airy place.

The corn I plant, or have planted for a number of years past, is the red glazed, or sometimes called small yellow, and the small Hutton; each kind get ripe at the same time, generally from the 10th to the 20th of September. Those two varieties will generally ripen on the tops of our highest hills; the height of our hills I suppose to be 500 or 600 feet above the Susquehanna River flats, and the flats here are 800 feet above tide, and latitude of this vicinity 42 North. A large amount of money is lost here every year by planting large late varieties of corn that will not ripen on the hills in this vicinity, the hills being generally from ten to fifteen days later than the Susquehanna River flats. It is getting to be well understood here that the large varieties of corn generally raised on the river flats seldom ripen on the hills, or ten or fifteen miles up the creek. Those varieties are the large Dutton and large eight-row yellow and white corn, and if they will not ripen on the hills, etc., it is not very probable they would ripen far north of here in the center of the State. In the summer of '56, Col. B. P. Johnson told me that a large farmer, I think it was near the center of the State, lost several hundred dollars in one year by planting the large Dutton corn that did not get ripe. The Delaware White, a large valuable kind raised on the Susquehanna flats, is said to be an early variety, but of that I can say nothing with certainty. Last season a number of fields of corn on the Susquehanna flats did not ripen good, and not one half the fields back from the river, it being a backward season. I would recommend farmers far north of here and on high lands here, to plant no kinds but the small Dutton, red glazed, small yellow Canada and white flint Canada, and King Philip, and King Philip improved. Last year I raised a few hills of the King Philip improved, but for all its being a Northern variety, it did not ripen earlier than my small Dutton. I think it to be a valuable kind, and shall plant all the seed I have, enough for one acre or more.

R. Howell.

Nichols, March 15th, 1858.

It may be good policy to plant these small varieties as near as 3 feet or 3½; but we are convinced that nothing but extra labor is the result of planting large varieties less than four.—Ed.

APPROPRIATE PREMIUM.

A Mr. Palmer, of Toronto, C. W., recently presented the *Markham Agricultural Society* a plow, all of iron, and of uncommonly good workmanship, estimated to be worth $40, to be given as a premium to the best ploughman, at the spring plowing match, at the village of Markham, C. W. A pretty good idea. The winner will gain a good thing, and the giver will loose nothing.—Ed.

AGRICULTURAL OPERATIONS OF PATENT OFFICE FOR MARCH.

We regret to learn, unofficially, that the publication of the Agricultural Report of the Patent Office will this year be delayed, by a resolution recently passed in Congress, which requires that all reports and documents shall be handed in complete. Heretofore a *programme* of the Agricultural Report has been accepted early in each session, and the publication commenced at once, the compiler furnishing "copy" as the printing progressed.

Among other illustrations in the following report, will be a portrait of "Duke," a Suffolk draft horse, the property of the late Mr. Catling, of Woodbridge, Suffolk, which gained the first prize of thirty pounds at the show of the Royal Agricultural Society of England, at Windsor, July, 1851, painted by Wm. H. Davis, of Chelsea, England, who has been engaged for upwards of forty years in painting prize animals in Great Britain.

Mr. Henry C. Williams, who was last fall dispatched by the Patent Office to make explorations in Western Arkansas, part of the Indian territory, and Northern Texas, for the purpose of obtaining information respecting the grape vines of that region, and making collections of the same, returned about the middle of March. He explored the region extending from a little east of Fort Smith on the Arkansas, to the Lower Cross Timbers in Texas, and includes a considerable portion of the Choctaw Nation. Eight hundred miles of this he traversed on foot, examining and collecting. He brought back a large number of cuttings and roots of the native vines, which the Commissioner of Patents has had so planted as will insure their propagation.

Mr. Williams left soon afterwards for the "Cherokee country," Upper Georgia, to obtain scions of the celebrated apples for which that region is justly famous. These apples originated from seed sent by order of President Jefferson for gratuitous distribution among the Cherokees. Several varieties ripen in May and June—others are later, and will keep the entire year.

Mr. Robert Fortune, whose appointment as agent to China for the purpose of collecting seeds of the tea-shrub, was mentioned in the last *Bulletin*, wrote a letter under date of "London, March 1st, 1858," from which we are permitted to make the following extracts:

"I have now to inform you that in compliance with instructions, I have taken my passage for China, and shall sail from Southampton on the 4th inst.

"It shall be my careful study to accomplish the important objects which you have entrusted to me, and you may rely on my not submitting to exorbitant charges, and on my acting in good faith to the Government of the United States.

"I have had so much experience in packing and shipping seeds and plants from China to India and England, that I venture to suggest to you that my operations should be conducted in the following manner: It will be imprudent to trust my collections in one or two vessels, as living plants are easily damaged during a long sea voyage. The more prudent course would be to ship by as many vessels as possible, say six or eight. But, as this will occupy some time, I think I had better come home by the overland route, and bring the seeds (not tea-seeds) with me, and endeavor to reach America as early as possible, in order to receive the plants on their arrival. If, on the contrary, I accompany the last shipment, *via* the Cape, the first would necessarily be home several weeks before I could be upon the spot to examine it and do what is needed. My object in offering this suggestion is to secure, if possible, the success of my mission, and I have no doubt you will agree with me in the propriety of such a course of procedure."
—*Bulletin U. S. Ag. Soc.*

A NEW COTTON IN TEXAS.

Mr. D. C. Sharpe, of Cherokee Co., Texas, has sent to New-Orleans specimens of cotton grown by him from seeds brought from Nicaragua, near Leon, in the mountains. It is the third year's production, on land lying near the 32d parallel of latitude, in a prairie country, the soil of which is sandy and saline, crystals of salt, saltpeter and alum being naturally formed on its surface. The stalk and bolls of this cotton, Dr. Sharpe states, are about as large as those of the Petty Gulf cotton; the seeds are much smaller, black and smooth, as a consequence of which, 1000 pounds of unginned yields 500 pounds of ginned cotton. But it is the lint of the cotton that is most noteworthy and remarkable. For fineness and silkiness, as well as tenacity of fiber and tenuity of thread, it has never been surpassed, if at all equalled. These qualities have led some to believe it the Sea Island cotton; but Dr. Sharpe is convinced that it is not, since it differs from that cotton in many material respects, whatever may be the correspondence between their respective staples. For instance, he says that 250 pounds of this cotton can be picked by one hand in a day, whereas of the Sea Island not more than 30 pounds can be picked. He believes that it can be successfully grown in nearly every part of Texas. If so, it may go as a great element of a new agricultural era in that magnificent State.—*Ibid.*

THE WHEAT CROPS.

The accounts of the growing wheat crop, from all the grain-growing States, are favorable. In the western States the quantity of land sown with wheat in the fall was larger than the previous year, the weather during September being especially favorable for it. At the

commencement of winter, the growth was more forward than for many years; the winter has been quite favorable in all the States, and the prospect of an abundant crop was never more favorable at the close of the month of March. Many express the fear, however, that the plants are too thick on the ground, and that, with favorable growing weather during April and May, the growth will be too rapid, producing a weak plant, and inducing rust or "lodging." It seems to be generally conceded that the crop is past the dangers of winter, and that it will do well until about the first of June, when the next crisis of the crop comes.—*Ibid.*

EXTRACT

FROM AN ADDRESS OF HON. N. P. BANKS.

In Holland, in 1841, the product of agricultural industry was $181,000,000; that of manufacturing industry, $144,000,000; and the estimated products of commerce, $65,000,000; thus of $390,000,000, commercial industry gave but little more than a sixth part, while manufactures and mechanics afforded 37 per cent. of the entire wealth of the state. In France, in the same year, the product of agriculture was $800,000,000; manufactures, $400,000,000; commerce and navigation, $268,000,000. Of an industrial product of $1,466,000,000, that of commerce is but 18 per cent., while the mechanic arts furnish a third of the amount The industrial product of England in 1840, was $630,000,000, and of all other pursuits, $855,000,000. Allowing to commerce a fifth of the aggregate, as in the case of Holland or France, or even a quarter part, it is still fer below that of manufactures and the mechanic arts.

NEW-YORK AGRICULTURAL COLLEGE.

The first annual report of the Trustees of the State Agricultural College has been submitted to the Legislature of New-York by Governor King. The report contains a brief history of the early efforts of the friends of the College to enlist the support of the farmers of the State and the favor of the Legislature; of the success which attended these efforts, in the liberal subscription of $45,000, principally by the farmers of the county of Seneca, and in the loan of $40,000 by the State for twenty years, without interest. It further states that a farm of 700 acres, of great variety of soil, well wooded and watered has been purchased in the town of Ovid, Seneca county, on the eastern slope of Seneca lake, on which the College buildings are to be erected; that the site of the College has been agreed upon, and contracts have been entered into for a portion of the materials to be used in the edifice; and that there is every reason to hope that, during the present year, the center building and south wing will be completed and in readiness next spring to receive those who may desire to acquire a sound, practical agricultural education and training.

Appended to the report is a statement of the amounts received from individuals and from the State, the manner in which they have been applied to the purchase of the farm, and in the outlay for managing and providing adequately the necessary stock and implements, leaving an unexpended balance of $30,000 yet to be received from the State treasury. This sum, it is confidently believed, will enable the trustees to complete the center building and south wing of the College, with the principal room for instruction and scientific purposes, and the necessary accommodation for one hundred and eighty students. The trustees declare their intention to make this, in fact as well as in name, an Agricultural College.

AGRICULTURAL PAPERS.

"*On the propriety of farmers supporting none but purely agricultural papers, as such; and is their publication monthly often enough?*"

It is an admitted principle in political economy, that the more labor is divided the better and cheaper it is performed; consequently the manner in which labor is divided in any country is a pretty good index to the prosperity, intelligence, and refinement of its people. Fifty years ago we had no agricultural papers, and few if any religious. Our journals then partook more or less of the commercial, political, religious, and agricultural characters. As we have advanced in civilization and refinement the wants of the reading people could not be met without a division of labor in this department, and we now have separate

newspapers devoted to all the trades, professions, and occupations, and who will say that this division has not contributed to our progress? Take one of the newspapers of even thirty years ago and compare its articles on agriculture with, for instance, the editorials of the *Genesee Farmer* of the past year, and you will find abundant evidences of progress. We have, to be sure, many valuable articles on agriculture in journals devoted mainly to other professions, but they are invariably credited to agricultural papers. If there is any one subject which more than any other requires the undivided energies, mind and attention of a conductor of its journal, that subject is agriculture. The world is just awakening to the fact that more science and intelligence is necessary in this department than in any other, and one of the great reasons is that it is incapable of that division of labor which tends so much to advancement in the mechanic arts. We have journals of law, of health, of medicine, and of mechanics. We have miners' journals, farmers' journals, railroad journals, vetrinary journals, and gardeners' journals—journals hydropathic, homeopathic, phrenologic, scientific, and spiritual—and if a man wishes to turn his attention to any particular branch of industry he can make his selection and pay only for what he wants. Surely these journals can be, must be, and are better conducted than are the same departments in those which have with agriculture a little of politics, love-tales, casualties, shocking accidents and dreadful tragedies, with a sprinkling of conundrums, rebuses, and enigmas. By this division of labor newspapers have become very much reduced in price, while at the same time the ability of the reading community to pay for them has been doubled if not quadrupled, and on the farmer's reading table instead of the weekly miscellany, which perhaps went the round of the neighborhood, we see the quarterly review, the monthly magazine, the weekly, semi-weekly, and perhaps the daily journal. These dailies, semi-weeklies and weeklies, although they perhaps answer well the purpose for which they were intended, must still be got up in somewhat of a hurry, and are liable to many blunders and mishaps, and when received by the subscriber are often laid aside for the moment and never resumed till wanted to wrap up a bundle. In fact they are of little value for future reference. The monthly journals are got up with more care, in less hurry, are less liable to errors and oversights, are in a more convenient form, the subject matter more condensed, contain more grain and less chaff, are more thoroughly read and better understood, contain more useful matter for future reference, seldom condemned to the rubbish heap, but are laid up in the library and read perhaps by the next generation. They take the place among newspapers, of standard works among books. —*Gen. Far.*

CULTIVATION OF TOMATOES.

A WRITER in the *Genesee Farmer* thus describes his method of transplanting and growing tomatoes. We should have said three feet each way; but perhaps he is nearer right. Fruit-bearing plants should not be too much in each others' sunlight.

My method is as follows: Cut with a long-bladed knife the dirt between the rows of plants each way, to the depth of six or eight inches. *Then, with a trowel or sharp spade, carefully take up each plant with as large a ball of earth as possible.* Do not trust their removal to careless hands. With a hoe, dig holes three inches deep; set in the plants with earth attached, and finish by hilling up, making large hills. If the work has been well done, the plants will scarcely wilt under a hot sun. By this method, the roots are brought near the surface, to receive the influence of the sun. The fruit is also well exposed to the sun, and my little mounds of tomatoes are not "forever and the day after" in ripening. No watering is necessary, except a little in the holes before transplanting, and then only in a dry time.

Tomato plants may be grown very well in crocks or boxes in the kitchen window; and inverted sods, nicely cut in squares, and then placed in a shallow box, make an *excellent substitute for crocks*, especially in these hard times. The plants thus grown should be set out of doors a few days to harden, previous to transplanting, taking care to cover cold nights.

Trimming off a portion of the side branches close to main stem, will produce larger and finer fruit.

Tomatoes give the greatest yield on a

rich soil, but do not ripen fruit so soon as when grown on a poorer one.

W. C. P.

DEEP PLOWING.

We are by no means sure that the following is correct in every point; but we are quite sure that no farmer can read it carefully without finding himself better qualified to form his own judgment in this important matter; and to that point we suppose all agricultural writings should tend. Agricultural journals, we take it, are not to do the farmer's thinking for him, but to aid him in being a good *thinker* and a sound judge in his own affairs.

Question.—At what period of the year of rotation would deep plowing be advisable? What kinds of soil does it benefit, and when should it be avoided?

Answer.—Deep plowing is most effective in the autumn, thus exposing the land to the influence of frost, rain, and wind during the winter, which act upon the mineral ingredients of the soil, rendering them available for the succeeding crops, and pulverizing the soil, and thus facilitating the passage of the roots into the subsoil. As regards the period of the rotation it is generally considered that deep cultivation is most beneficial after the wheat crop, as a preparation for the root crop and the whole succeeding rotation. At the end of every rotation it is deemed advisable that the land receive a deeper stirring than would be considered safe or expedient in preparation for a corn crop, in order to disturb the hard impenetrable stratum formed by the continuous treading of horses and the passage of the plow, and also to bring to the surface a fresh portion of unexhausted soil to be incorporated with that from which the previous rotation has derived its nourishment. Moreover, the first crop which follows requires a deep, well pulverized soil; a soil, in fact, which will offer as little resistance as possible to the expansion of the bulbs. Therefore, taking all these points into consideration, we conclude that the most suitable time for deep plowing is in autumn, previous to the root crop, or for the bare fallow after a corn crop in cases where the soil is unsuited for the root crop.

The soils most benefited by deep cultivation are stiff clay lands, those soils resting immediately upon rock can not be subsoiled even if it were desirable, which is very doubtful. As a rule, we may say, plow deep, when the subsoil is of the same character as the surface, if both are tenacious, or when the subsoil is composed of good clay, only requiring atmospheric influence to sweeten it. Deep cultivation should be avoided in nearly all very light soils. It should be avoided when preparing for corn, either for barley after roots fed off, in which case we should by deep plowing bury the manure beyond the reach of the crop, and in plowing the clover lea for wheat it would be especially injurious. In undrained clays deep plowing would be objectionable. Deep plowing benefits most clay soils, in fact to plow such heavy land as No. 4 in the autumn is equal to half dressing of manure. Professor Wey estimates a clay soil to absorb as much ammonia during the fallow as would be contained in 2 cwt. of guano; those clays containing a large quantity of insoluble silicates of potash are generally benefited. Clay, from which the air is excluded, exhibits a dark bluish color. The frost during the winter penetrates the soil, and acts mechanically by destroying the adhesion of the particles. After draining clay it is not advisable to bring to the surface more than two inches of new soil at a time, otherwise more is brought up than the winter frost, &c., can pulverize and sweeten, and the first crop that follows, finding an uncongenial seed bed, will not flourish.—*London Magnet.*

THE POTATO DISEASE.

Another theory has been recently suggested on this subject. It proceeds from a man of much experience and of high reputation as a thorough practical gardener; one who has been in charge of extensive establishments for many years in England. He suggests that the disease is caused by the potatoes that are used for seed having been permitted to become over-ripe when grown; and his remedy is to take up the potatoes that are wanted for the following year's planting at an earlier period than the general crop; that is, as soon as they have grown to their size, and whilst the

leaves remain green. To get a pure sort, free from disease, he advises (as others have done) raising from seed, and thenceforth to propagate as above pointed out. He also recommends potatoes to be invariably planted whole, and never cut into sets.

This last recommendation we believe to be good, beyond all doubt. Whether the other is, we will not undertake to decide. It may be worth trying.—Ed.

LIFE IN THE COUNTRY.

A merchant, turned farmer, in a letter to one of his old city friends, says:

"You seem to think that the society of farmers and rural residents must be exceedingly dull and stupid. I can assure you it is not so. My neighbors in the country may not be so quick and ready in conversation as my old friends in the city, and their attention may not have been directed to so great a diversity of subjects, but their knowledge is less superficial, and their judgment far more sound and reliable. But even if intellectually inferior, which I do not admit, they are certainly *morally superior*. Take a hundred individuals, without any picking, from my new neighbors, and a like number from the old, and there will be found more among the former than the latter who deserve and might command your moral respect and approbation—men who are honest, sincere, reliable, and of good moral habits and worth of character. For my own part, I take more pleasure in the society of the good than in that of the roguish and unprincipled, be the latter ever so smart. Then, again, I can be more with my family than when keeping store, and can more easily keep my children from the contamination of evil companions. But the crowning recommendation of my farming pursuits is this: I feel that I am working together with God in providing for the primary wants of his human family."

DOGS, HOGS, AND SHEEP.

"What a dog lives upon will keep a hog." If any farmer doubts the truth of the saying, let him kill his useless dog and put a pig in the pen and give it the dog's allowance. He will find in a few months that he has a fine fat porker fit to be eaten, a use the dog could not be possible applied to by any Christian man. There are too many dogs in the country, by far too many—if they had all been killed a year ago, there might be two hundred pounds of good fat pork to balance against every dog so set aside, which would be no inconsiderable item in the supply of food for the country.

If dogs were merely useless, they would not deserve so severe a reprobation as is now their just due. While dogs are so numerous sheep stand a poor chance to get through the world and yield their annual fleece with untorn throats. The increase of the dog population accounts in part for the scarcity of sheep. An exchange paper says that "fourteen farmers of Stockbridge, within the past five years, have suffered the loss, by dogs, of 295 sheep, valued at $1025. One farmer alone computes his killed and injured animals at 177, and their value at $450. Some of the sheep were of choice varieties, and valued at from $5 to $20 per head." We doubt not that of many another town in Massachusetts, a worse story may be told.

The great damages that have been done by dogs to sheep led to the enactment of a stringent dog-law by the last Legislature. Persons owning dogs, whose lives are precious in their sight, will do well to give heed to its provisions. By this law the owner of every dog is obliged to have him numbered and registered on or before the first of May, and any unregistered dog can be killed. It is made the duty of every sheriff, deputy sheriff, or constable, to kill said unregistered dogs upon the call of any legal voter. Any person who allows a dog to remain on his premises is to be presumed to be the owner of the dog, and he is commanded to obtain a collar with his name and the registered number of the dog upon it, and any person killing such a dog without justifiable cause is liable to an action for damages. Male dogs are to be assessed one dollar, and female dogs five dollars, and in case the tax is not paid by the owner on or before July 1st of each year, the dog is liable to be destroyed. All moneys collected under this law in the towns of the State, are to be kept separate as a "dog fund," to remunerate any person who may have had sheep killed, and any dogs found to have been engaged in killing said sheep are to be destroyed provided

the owner is unable to save his life by compounding with the owner of the sheep for a money compensation.

We confidently expect that after the 1st of May the number of the canine race will greatly diminish, and that sausages will be dog-cheap in the cities.—*Hampshire and Franklin Express.*

LONGEVITY OF MULES.

The *Medical World* says that there is a mule in possession of a farmer, near Ballingloss, Ireland, which has been employed in the transit of ammunition, &c., to Vinegar Hill, since 1798. There is a saying that a white mule lives longer than any other mule. Some years ago, one of that color on Col. Middleton's estate, in South Carolina, was over eighty years old, and was still at work.

EARLY BARLEY.

We were favored with a sight of a stalk of fine Barley, grown on the ranch of J. Beam, Esq., near Sacramento. It was a sample of Barley, of which there are forty acres of the same kind, and it was three to three and a half feet high. It was raised upon land which had been *summer fallowed* the year previous, and this was the *second* or "volunteer crop," and it now gives promise of yielding an enormous crop. When will farmers look carefully to the system of subsoiling and summer fallowing for the grain crops of our State? They must come to it sooner or later.—*Cal. Far.*

WHERE THE FIRST MAPLE SUGAR WAS MADE.

In *Dodsley's Register* for October, 1765, it is stated that "a method of making sugar and molasses from the sap of a certain tree called the maple, common in the New-England colonies, has just been discovered and put in practice at several portions of New-England, but especially at Bernardston, about 20 miles from Athol."—*Ohio Farmer.*

ANSWERS TO CORRESPONDENTS.

J. D. inquires, Whether fallowing can be practised to advantage in this country. Had this question been proposed to us a few years ago, we should have said no, and we should have wondered that there could be a doubt on the subject. We should have said that there could hardly be a more senseless practice than to expose the surface soil to the suns and winds through our long and hot summers. And we are still clear that with a shallow plowing, such as has generally been practised among us, and with the object solely of killing the weeds and resting the land, as used to be said, there could be no great difference of opinion. But whether, in connection with deep plowing, with the additional object of warming and ventilating the soil newly turned up from a great depth, it may not be wise in some cases, we are not now so certain, and we invite attention to the extract in this number by Mr. Morley, taken from the *California Farmer.* He seems to have borrowed his ideas from Scotland, where the climate is about as unlike ours as is possible; and yet we are not sure but he may be correct, as regards farming in California, and perhaps in other portions of this country. We would like an article or two on this subject from any who are prepared to state the results of careful experiments.

O. N. rallies us on our notions about deep plowing, thinks we are not up to the times, and says we should write 10 inches, where we say 7, 13 inches where we say 9, and go on towards the point where the Australian's plow and ours should approach each other. We have only to say in reply, that when we say any number of inches we mean that number, and not 40 or 50 per cent. less. The depth of plowing is almost always overestimated. We have heard men bragging that they plowed a foot deep, when we would not have paid them for much more than 6 inches. It will not do to say that land is plowed a foot deep, because here and there a spot is mellowed to that depth. If the whole is pulverized to the depth of six inches, most will give the owner credit for plowing at least eight inches. For many soils, unless manured very highly indeed,

that is deep enough. We are yet willing to stand by what we said in a recent number, where we undertook to discriminate, in what circumstances it would be advisable to put the plow down to the beam, and in what it would not.

"*Can you give me any information about the Hungarian Rye Grass?*" Not much. We have seen it growing in only one field. That was a fine crop. Its appearance is that of rather coarse food for cattle; but all who have tried say they love it exceedingly, and that it is peculiarly adapted to stand a drouth, that in any land it grows fresh and green when other grasses fail; but we do not know the truth of this except from general report. It grows about the height of oats, and the side leaves are numerous and extend almost to the top. The heads are something like those of herds grass but three or four times as large. It produces an immense crop of seed, and one bushel of the seed is enough to sow three acres.

Horticultural.

CALENDAR FOR MAY.

FLOWERS.

Annuals of all descriptions may now be sown in the flower garden. And some should be sown also a fortnight later in a shady border, in small patches to be afterwards transplanted into the flower border, to supply the place of plants gone out of bloom. ' This may readily be done by taking them up with a trowel with a good ball of earth. When night frosts are gone many *geraniums* and other plants from the greenhouse may be planted in the flower beds, such as *Fuchsias*, *Heliotropes*, *Salvias*, *Petunias*, *Verbenias*, and numerous others.

Climbing plants and vines may be sown and planted against trellises and arbors, or placed at the root of any old dead tree, they will run over it and become beautiful objects during the autumn months. For this purpose *Maurandias*, *Nasturtiums*, *Cypress Vines*, and the *Hop* are excellent plants.

Dahlias may now be propagated by division of the roots, or by placing them in a greenhouse or frame, and in a few days taking off the shoots that will spring forth, which will root readily round the edge of a pot. It is best not to plant out Dahlias until the middle of June, until which time keep them under glass with plenty of air. They will be more healthy and bloom more freely than if planted out earlier.

Greenhouse.—As soon as the weather permits, fires at night should be altogether discontinued, or the new growth making at this season by the generality of plants will be too much drawn up. Give all the air possible, and when night frosts have ceased, place some of the most hardy plants at once out of doors in a north aspect to keep them from the direct rays of the sun, which, striking on the sides of the pots, injures the roots and dries up the soil too rapidly. It is a good plan to plunge the pots in ashes, saw-dust, tar, or some such material, and to let them stand upon it also, to prevent worms from entering the pots. In this situation they will require daily attention in watering.

Before the plants are put out of doors they should be shifted into other pots; giving each plant a compost suited to it.

With the three kinds of compost following almost all kinds of Greenhouse plants will thrive well. One or other of them being suitable for each so as to grow it in good perfection, although florists and nurserymen use a great variety of other compositions.

1st. Half old hot-bed manure; half loam or the top soil of a good pasture; one-sixth in bulk of white sand. This is adapted for Geraniums and other half succulent plants that make a rapid growth in a few months, but much of which growth is cut down in culture after the blooming, and is consequently renewed every year.

2d. One-half of the compost No. 1; one-half of peat earth or leaf mold. This is adapted for Greenhouse evergreen plants, as Camillias, and also for Fuchsias and plants of a slightly ligneous growth, that are rapid growers and have fine roots; also for bulbous rooted plants.

3d. Two-thirds peat; one-third leaf mold; one-sixth white sand. This is adapted for Heaths, Epacris, and New-Holland evergreen plants of a tough ligneous kind, usually called hard-wooded plants.

Special attention should be given to the drainage. An inch at least of broken pot-shards should be filled in the bottom of each pot before putting in the composts.

All the above compests should be thoroughly mixed by turning over repeatedly before they are used, but should be used in the rough state and *not* sifted.

KITCHEN GARDEN.

Celery may now be planted out in trenches from the seed bed.

Snap and *Running Beans* may be sown. Of the Snaps the *Early Valentine* and the *Early Yellow* will be the first crop, and *Early Dun*, *Early Rachel*, and *Large White Kidney* are good kinds for succession. Of Running Beans the *Specked Cranberry*, *Dutch Case Knife*, and *White Lima* will give satisfaction.

Tomatoes, *Melons*, *Egg Plants*, *Cucumbers*, and *Marrow Squash* may be planted or sown as soon as the weather is settled; but no time is gained by planting them out too early. To have them and also beans very early, the best way is to sow in frames under glass, and transplant afterwards in the open ground.

Brocoli, *Cauliflower* and *Cabbages* should be transplanted from frames to the open ground. It is a good plan to plant out part early this month, and reserve part to put out a fortnight later, to guard against a return of cold nights, which *may* check those first set out.

It is useless to plant vegetables unless attention be given, especially during the early growth, to their tillage. Weeds must be kept under, or there will not be half a crop.

ON ROSES IN POTS.

BY ROSA.

How often do we see our lady friends at this season of the year purchasing roses in pots, which as soon as they cease to bloom in their drawing-room are either set aside as useless or else drag on a miserable existence without ever after producing a bloom worth seeing. This would be avoided if in May or June they were turned out into the open borders and then treated as the following remarks suggest:

Roses in pots may be bloomed by a little forcing as early as Christmas. But without that, they may with the aid of a garden frame to protect them in winter, be very successfully had in bloom in April and May, and in a greenhouse still earlier. It is best when roses are standing out in the borders in the autumn, not to take them up for potting until the first sharp frost has checked their growth. But then no time must be lost, but the whole stock required for pots must be at once taken up, and they may be brought into a shed or under the greenhouse stage, and have their roots there covered over with earth, when they will take no harm for a week or two until attention can be given to getting them into pots. In taking up the roses, however, from the ground, great

care should be taken to *lift* their roots well out of the soil with the spade, and not merely loosen and then pull them out to the destruction of half the roots.

Roses do not require very large pots. Those from six to eight inches across will be sufficient, unless the plants are very large. The best mode of potting roses is to have two good heaps, the one of good loam, the other of very well decayed stable manure. Fill the pot one-third full of the manure, then place a little of the loam on that, and then the rose, filling up the pot with loam only. We know that some persons prefer mixing the above ingredients and adding to them some peat or leaf mold, and in such a compost roses will grow very well. But from many years' experience we consider that both in size of bloom, color, and fragrance, roses will be found far superior if potted as we have above directed. Some additional caution, however, is required in giving water to roses thus treated, because the loam is more retentive of water than the compost would be; and therefore, until they have made their bloom buds and these are rapidly swelling for expansion, water must only be given when the loam is becoming dry. A little practice will regulate this.

After potting, the plants will require to be moderately cut back. The pruning will depend upon the kind of rose. The China, Tea, and Bourbon Roses should not be too severely cut. The Hybrid Perpetual will require closer pruning, say to six or eight buds on a shoot, and the Common Moss, Cabbage, Gallica and Provence roses should have each shoot cut back to the third or fourth bud at their base. After pruning the plants require to be neatly tied to sticks; and then they may be placed in a garden frame or on the stage of a greenhouse. If they are in a frame, it is a good plan to plunge the pots in tan, sawdust, or cinder ashes; in such a situation they will require no water scarcely until March; and the glass light on the frame with a little straw or a mat over will be sufficient protection. During severe frost, care must be taken *not* to remove the mat or straw *entirely*, so as to expose the stems of the plants to the action of the sun; but still some light and air should be given whenever the weather permits. When frost has touched the stems they should *never*, until thawed, have the sun upon them. Let them thaw in shade.

As the season advances and the roses progress towards blooming, care must be taken to guard against the ravages of insects, especially the green fly (or *aphis*) and the red spider. The syringe is useful for this purpose; and tobacco smoke will also remove the fly. They should be especially attended to in this respect just before the season of the principal bloom, because when the flowers are expanded they sustain injury from these remedies. But at all times the inroads of these insects must be prevented, for if the plants once become badly infested with them their beauty will be destroyed for the year.

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We have the pleasure of knowing Rosa very well; and we assure our readers that all her articles, like herself, are characterized by good sense; and under whatever name they appear, are always well worth reading. Sound judgment and an entire freedom from all affectation are the marks by which you may recognize them.—Ed.

For the Am. Farmers' Magazine.

TREES AND FRUIT BUDS *vs.* COLD WATER.

Mr. Editor:—I may not be regarded as a "careful observer," but I will nevertheless attempt to give my views on the causes that kill fruit trees and fruit buds. Now, I may err in what I shall advance on this subject, for it is a theme upon which many singular opinions can be put forth, and yet all of them may look more or less plausible.

In the county in which I live, (and it is more or less so in all the Northern States,) we often, in the winter months, have very cold weather, particularly, you know, in January and February. The bud of the peach tree and other fruit trees sometimes expands in the fall, so that it is made more or less forward. Well, now, the cold weather of January comes on; mercury drops in the tube of the thermometer down to 14° or 15° below zero; the germ of the bud—a little peach in every sense of the word, just fairly organized—can not withstand this condition of the weather (15° below zero) and consequently dies; and when the weather "slackens up," or grows more moderate, the small miniature peach turns *black*, and never again recovers from the stroke it has received. The tree, which has grown rapidly, the shoots of which are vigorous and juicy, also receives a death stroke many times through intensely cold weather, when the thermometer indicates a condition of the atmosphere 15° or 20° below zero. There is a point in almost every thing beyond which it will not do to go. The peach tree in our more northern climates is particularly subject to be killed by frost, and there are counties in New-York State where the peach can not be raised, the country being too frosty. On high elevations it seems to do the best. We hear it reported that in Northern Illinois the people have not raised many, if any peaches, within the last two or three years. Why is this? Plainly because the weather was too cold for the trees to recover from its effects in the spring. The apple and other trees also have died in that State, as well as in Wisconsin. Now, we have a large peach orchard, and in the winter of 1856, the weather being *very cold*, thousands of branches died, and I removed them in the spring. Our apple trees also suffered amazingly hereabouts. Indeed, we really thought that a new system of the laws of nature had dawned upon us, so poorly did many of our quince, apple, peach and other trees look. Sometimes, very many times, fruit buds are killed in consequence of the cause which you mention, namely, "*a sudden freezing after mild weather*," but I believe this is not the case so frequently as through intensely cold weather. A peach blossom, or any other blossom, will stand quite a little frost, and yet the fruit will not be materially injured. Now, for instance, I have been making an examination of some of our peach buds. I notice that about two-thirds of them are dead this season, while what remain look very well. Where the west wind struck the most severely during the 24th of February, or about that time, mercury being about 8° or 10° below zero, at that point the buds are more frequently dead than on the east side of the limbs or trees. Immediately after the cold "snap," I went into the orchard and made the examination, and the buds turned out to be dead as above mentioned. We all have our peculiar notions about these matters, but I know that a shoot on a tree which has had a rapid growth during the summer, is most likely to suffer from the cold of a subsequent winter on account of its tender organization. Now, a tree that is thoroughly acclimated, a native of the country, will stand the winter much better than some of "those celebrated imported varieties" from France, &c. We can not raise the "raisin grape" with any kind of success in New-York, and it does not grow very well, I believe, in the southern part of Ohio. From these observations, if they be mainly true, it will be seen at once that the weather has its perceptible effects upon trees and their organizations, and that fruit buds must die on peach trees when the thermometer indicates from 12° to 15° below zero. Apple tree buds are more hardy, and will come out safe many times when the weather is intensely severe, but when you gather the fruit, then you see what perceptible in-

roads the cold weather of the previous winter has made upon your apples, &c.

About the contraction and expansion of water—that matter I shall willingly leave to yourself and your correspondent. The subject is a very good one, but how to preserve our trees from the effects of cold weather is still more important in my opinion. Last winter the weather was generally mild, though we had our "cold snaps" in February. The season, however, promises very well for fruit of most kinds. The country will not, I think, be over supplied with peaches, but aside from this wholesome fruit, we may look forward to a bountiful fruit harvest.

In conclusion, allow an old reader of your journal to express his approval of the variety of matter which the "*Farmers' Magazine*" contains. Give us a variety, with a rich spice of miscellany if you please. It is taken for granted, though, that you know how to manage your own journal. W. TAPPAN.

BALDWINSVILLE, Onondaga Co., N. Y., April 10, 1858.

POWERS OF VEGETATION TO RESIST EXTREMES OF TEMPERATURE.

BY A FRIEND.

IT is most essential to the success of the operations, both of the agriculturist and the horticulturist, that as comprehensive a view as possible should be obtained of the organization of the vegetable kingdom, and of the powers of resistance that it possesses of the extremes of temperature. For although practically he may pass through life without ever even seeing the moss which in Lapland not only lives, but *grows* beneath the snow, and furnishes the frugal meal of the docile reindeer, and without boiling eggs for his breakfast reposed upon the herbage which we shall presently advert to as growing in the hot springs of the Himalaya mountains, yet the knowledge of such powers of endurance in different families of plants, when combined with other knowledge of various descriptions, connected with the organs of plants, tends immensely (if it does nothing else) to make the inquiring agriculturist cautious and careful in his experiments, and in the deductions which he draws from them.

Hastily-formed conclusions are seldom very accurate in whatever branch of scientific inquiry they are arrived at, and applied to. But in no department of practical knowledge is it more needful to guard against them, than in the prosecution of agricultural pursuits. Slight differences of temperature, of moisture, or of atmospheric change, have frequently been sufficient to confound and to obscure the most carefully conducted experiments. And in the much canvassed, but yet unsolved, problem of the potato disease, we have at this moment unfortunately patent evident that our present acquirements in agriculture, have by no means attained a degree of efficiency, with which we can rest satisfied.

Nothing is more surprising in the study of vegetable physiology than the variation of the *powers of endurance* of the extremes of heat and cold in different families. And this is the more remarkable, because those powers appear to have little or nothing in connection with the *texture* of their organization. In reference to the powers of endurance of moisture and drought, it is otherwise, at least to a considerable extent. For we find the *Cacti* family, and many others that are indigenous to climates that have long seasons of drought, are provided with organs that are calculated to retain, as it were, reservoirs of moisture, whilst the organization of their cuticle is such as to lessen evaporation and exhalation from their surface. But in regard to the powers of resisting extremes of heat and cold, many families of plants with organizations of the most fragile texture, are found to have these powers equally; some as to heat, others as to cold.

This is a subject that deserves consideration in connection with the study of climate, to which we have directed attention in recent numbers of this magazine, and the following description of the hot-springs of the Himalaya from Dr. Hooker's Journal, to which interesting work we referred in a preceding article, are well deserving attention:

"The hot-springs (called Soorujkoond) near Belcuppee (altitude 1219 feet) in the Behar Mountains, north-west of Calcutta, (lat. 24 N., long. 86 E.,) are four in number, and rise in as many ruined brick tanks about two yards across. Another tank fed by a cold spring about twice that size flows between two of the hot, only two or three paces distant from one of the latter on either hand. All burst through the Gneiss rocks, meet in one stream after a few yards, and are conducted by brick canals to a pool of cold water about 80 yards off.

"The temperatures of the hot springs were respectively 169°, 170°, 173°, and 190° of the cold, 84° at 4 P.M., and 75° at 7 A.M. the following morning. The hottest is the middle of the five. The water of the cold spring is sweet but not good, and emits gaseous bubbles; it was covered with a green floating *conferva*. Of the four hot springs the most copious is about three feet deep, bubbles constantly, boils eggs, and though brilliantly clear, has an exceedingly nauseous taste. These and the other warm ones cover the bricks and surrounding rocks with a thick incrustation of salts.

"Conferva abounds in the warm stream from the springs, and two species, one ochreous brown and the other green, occur on the margins of the tanks themselves, and in the hottest water; the brown is the best salamander, and forms a belt in deeper water than the green; both appear in broad luxuriant strata, whenever the temperature is cooled down to 168°, and as low as 90°. Of flowering plants, three showed in an eminent degree a constitution capable of resisting the heat, if not a predilection for it; these were all *cyperacea*, a *cyperus*, and an *eleocharis*, having their roots in water of 100°, and where they are probably exposed to greater heat; and a *timbristylis* at 98°; all were very luxuriant. From the edges of the four hot springs I gathered sixteen species of flowering plants, and from the cold tank five, which did not grow in the hot. A water-beetle, colymbetes, and notonecta, abounded in water at 112°, with quantities of dead shells; frogs were very lively, with live shells at 90°, and with various other water-beetles. Having no means of detecting the salts of this water, I bottled some for future analysis."

From the foregoing quotation it will be perceived that the temperature of the hottest spring was 190° Farenheit, which is but little below that of boiling water. And although not so luxuriant as in the cooler springs, yet vegetable life was found to exist and grow in that high temperature. Had a cabbage or a potato been placed by the side of the *conferva* in that spring, it would have been soon cooked ready for the dinner table; and the powers of endurance of the action of heat possessed by a living plant, therefore, can be easily conceived.

With such well attested facts before us, we may well hesitate before we form a decided opinion upon the adaptability of any plant of a new character, that it may appear desirable to introduce as an agricultural crop. It is not possible to judge of many, from the result of two or three trials only. Because although oftentimes we may be quite right in the view we take of our first experiments, yet it will frequently occur that until by repeated trials we become by experience well acquainted with the constitution of a new plant, we may attribute our success or our failure to causes which in fact had nothing to do with either. And therefore we may so be led into error which further experiment would dispel.

That this is so, will be evident to any

one who is familiar with the vast changes that have taken place within the last few years in the cultivation of fruits and vegetables. Many crops that some years back were considered to require years (especially in fruits) of previous care of the plants to produce them, are now produced in less than one. And this with things that have been familiar to the gardener for above an hundred years.

In fact the agriculturist no less than the horticulturist, who would prosecute his calling with due reference to the guidance of scientific principles, will never assume that he has arrived at a knowledge of the *best* mode of cultivating *any* crop. Whilst he will be cautious not to experimentalize without due regard to prudence and to principles, he will nevertheless be ever earnest in the "forward" effort, and will take care that his labors are as steadily directed by his judgment, as his plow is by his hand.

For the American Farmers' Magazine.

GROWING CUCUMBERS.

BY A N.H. MAN.

Something for Boys to do.

Nothing is more profitable than cucumbers as a crop. A few hills will yield enough fruit to make pickles to amount to a much larger sum than anything that can be planted. The general culture of this plant is fully understood; but I find by placing a frame of latticework for the vines to run upon, the yield is much larger, the fruit more easily gathered, and is also kept up from the ground. The frame is placed near the plant, and allowed to slant at an angle of forty-five degrees, the vines trained upon it, and the cucumbers allowed to hang through the spaces between the slats forming the frame.

If the fruit is raised to sell, the smaller it is the better—from three to four inches in length is the proper size. Pick every morning, and lay carefully in barrels, and cover with whisky (?! Ed.) and water—one part of the latter to three of the former. Lay a cloth over the pickles, and when more is added take it off and rinse it. When the barrel is full head it, and it is ready for market.

I have known a dozen hills to yield two barrels of pickles, which sold readily for nine dollars per barrel. The barrels were such as are used to pack pork in. Let the boys try raising cucumbers, they will at least make enough to spend of a "Fourth of July."

Antrim, Mich., 1858.

Yes, boys, that is a good thought. We will give a beautifully bound volume of the *Plough, Loom and Anvil* to the boy who will verify to us the best story about growing cucumbers this summer, on a plot of not less than one or more than two rods. He must give us his age; must do the work with his own hands; give us a handsomely written statement of the process and results; and send us the certificate of his father and a good neighbor that his statement is correct. That will be a sufficient guaranty for us, for we do not believe any father would wish his son to win by a false statement.—Ed.

THE GARDEN OF THE FARM.

With all the improvements, and they have been many, three-fourths of the farm gardens in the State are still a disgrace to our husbandry. The most easily raised vegetables are not to be found in them as a rule; and the small fruits, with the exception of currants, are the rare exceptions. Not half the farmers in the State have ever tasted an Early York Cabbage.

If they get cabbages or potatoes at all by August 1st, they think they do pretty well. They do not understand the simple mysteries of a hot-bed, and force nothing. Now, with this article, which need not cost five dollars, and which a boy of ten years can manage, you can have cabbage and potatoes, the last week in June, and beans, tomatoes, cucumbers, and squashes, and a host of other delicious vegetables a little later.

By selecting your seed, you can have lettuce, green peas, onions and beets, by

the last of June, or before, without any forcing. A good asparagus bed, covering two square rods of land, is a luxury that no farmer should be without. It will give him a palatable dish, green and succulent from the bosom of the earth every day, from May 1st to July.

A good variety of vegetables is within the reach of every farmer the year round. They are not only an important means of supporting the family, paying at least one-half of the table expenses, but they are conducive to health. They relieve the terrible monotony of salt junk, and in the warm season prevent the fevers and bowel complaints so often induced by too much animal food.

Make your preparations this month for a good garden—better by a hundred per cent than you have ever had before. Get the seeds now, before they are sold. Look over the advertising lists, as if they were meant for you. If you do not go to the market yourself, this is an age of expresses, and even post-office carries seeds cheap enough for you to use it. Cabbage, lettuce, onion, carrots, parsnips, and other seeds can all come by mail, at small cost.—*The Homestead.*

PRUNING AND MANAGEMENT OF BLACK CURRANT.

Black currants require quite a different system of pruning from the other varieties; the great point to aim at is to get as much young wood as possible every year from the lower part of the tree. This is increased by thinning out the old wood from the bottom, and the finest fruit is obtained from the young wood. In striking the black currant you should select young shoots about 10 or 12 inches long, insert them in the ground, with the buds on, about six inches. The buds of the other sorts are rubbed off except about four, which are left on the portion out of ground. I have had black kinds struck on the same system, but they never lasted long; they die off limb by limb about the time they ought to make good trees. They like a moisture holding soil; if planted on dry ground they suffer much in hot summers. Red and white sorts like a much lighter soil; they produce their fruit from spurs on the old wood. In pruning cut a portion of the young wood back every year and thin according to the growth of the tree.—*London Gardeners' Chronicle.*

Literary.

THE HEROINES OF ONEIDA.

AN ORIGINAL TALE OF NEW-YORK STATE, FOUNDED ON FACT.

[Entered according to Act of Congress, in the year 1852, by J. A. Nash, in the Clerk's office of the District Court of the United States, for the Southern District of New-York.]

[CONCLUDED FROM THE APRIL NUMBER.]

Scarcely had young Dean performed the last sad duties to his honored parents, when the Revolutionary War broke out, in which, on one side or on the other, red man and white, were speedily involved. At such a time missionary duties were out of the question; and instead of entering upon them, James Dean found himself in 1775 appointed Indian agent, (for which office his previous experience had well fitted him,) with the rank of a major in the army. The duties connected with his new calling he continued to discharge throughout the war, being principally employed in Oneida and its neighborhood, where his influence with the Indians was of infinite value to the service.

About the time the war was growing to a close he married; and when it ceased, and his official duties with it, he reminded his Oneida friends of their promised gift, a call to which they readily responded, and made him a grant of two square miles of land near Rome, which they subsequently, at his request, exchanged for a tract in Westmoreland, to which he removed about 1786 with his newly married wife.

The next two or three years of James Dean's eventful life were passed in the tranquil pursuits of the farmer—clearing and improving the lands and laying the foundation for that scene of future development of the resources of that fine country which, at the present time, has taken the place of his primitive labors.

His wife had presented him with two pledges of her love.

It is an opinion strongly maintained by some learned men of the present age, that amongst the red race of North America is to be found remnants of the lost ten tribes of Israel, who, as they contend, found their way to the north-western shores of this continent from the north-eastern part of Asia. How far the evidence adduced is adequate to warrant this dictum, we can not stop to inquire. Be this as it may, many plausible coincidences of customs and habits have been brought forward in aid of it, and amongst them the fact that in the traditions and customs of the Indians at the present day, may be traced a similarity to some of the provisions of the Mosaic laws too specific to be rationally accounted for, except on the supposition that they both owed their existence to a common origin. The custom that we are about to mention is one of these coincidences.

Amongst the Oneidas and some of the neighboring tribes, a custom has from time immemorial prevailed, that if one of their number is murdered, the nearest relative of the victim shall follow the murderer and avenge his death if it be committed by a member of the same tribe. But if by a member of another tribe, then it becomes the duty of the whole tribe to take the matter under their cognizance, and to inflict retribution by seizing and immolating a man of the tribe to which the murderer belongs.

This custom or law of their polity is not regarded simply as an act of retributive justice or of personal revenge; but as being essential to the happiness of the departed spirit of the victim. And it is looked upon, therefore, as a religious duty agreeable to the will of the Great Spirit. It is in this assumed origin of the custom itself, as emanating from the supernatural source, that the presumed connection exists, which some persons see between the Mosaic and this Indian law. Because were that wanting, the vengeful passions of human nature, especially in the uncivilized state, (and, alas, it is scarcely needful to refer to *that*,) are amply sufficient *otherwise* to account for the practice of the righteous law of blood for blood.

During the years that had elapsed since Dean's youthful domicile amongst them, his friends amongst the elder chiefs had many of them died, and most of the leading men were now those, who at that period were mere boys. The natural consequence of which was, that as Dean had long ceased to have any connection with the tribe, except in his official character of Indian agent, and as *that* had now also ceased for some years, his ties with the tribe were limited to the few remaining old friends of his early life. Of these Han Yerry and his wife, who adopted him as her son on his admission to the tribe, and his friend Omi with Howala, who had become his wife, and her mother Hama, still survived. Faithful to their grateful remembrance of him, these kind-hearted redskins paid him periodical visits, and evinced towards him a warmth of gratitude and strength of affection, that in the civilized world too frequently is lost in that selfish indifference and forgetfulness of our benefactors, which affords but poor testimony in favor of the improvement, that the culture of the mind, is said to produce upon the feelings of the heart.

An event, however, now occurred that brought Dean again, for a short time, intimately in contact with his Indian tribe.

About three years after James Dean had settled upon his Indian grant, it happened that one of the Oneida Indians was murdered by a white man. That he *was* a white was known to them, but all attempts to trace the murderer proved futile.

In this state of things the chiefs of the tribe held a council to determine upon the course to be adopted. That *some* white man must be sacrificed to satisfy

the requirements of their ideas of duty, was unquestionable; but the mode to be adopted to effect that, and the selection of the victim, became the subject of long debate. Some of the younger chiefs proposed that Dean should be selected for the purpose. He was well known to them from the office he had held, and was therefore assumed to be a man of great influence and character amongst the whites. They therefore urged that his immolation would be calculated to strike terror into the whites, and be a probable means of rendering it less likely that they would again be guilty of a repetition of the crime, on account of which the Oneidas purposed to take his life.

Against this it was urged by older members of the tribe, that Dean having been in early life adopted as a son into the tribe, could not without breach of honor and an outrage on their own internal polity, be now treated as a stranger. And further, that his death would not, on account of the relationship into which they had taken him, satisfy the requirements of their law, or rather, that it would be inefficient to give peace to the spirit of their murdered brother; seeing that as the murderer did not belong to the Oneidas, the atonement for the offense must be made by the death of one of that tribe to which the murderer himself belonged, and *this*, it was contented Dean could not be considered to be, since his adoption into the Oneida tribe. This view of the question it may well be supposed was strenuously supported by Han Yerry. The council broke up, however, without any decision being agreed upon, and the subject was left open for further discussion.

Knowing the revengeful character of his associates, and seeing that the chiefs favorably disposed towards Dean were in a fearful minority, Han Yerry's mind foreboded an unfavorable result, and his heart yearned towards his *white son* with the affection almost of a parent. He was nevertheless, as an Indian, a stern disciplinarian, and regarded submission to the customs of his tribe and conformity to their solemn decisions, as duties to which private feelings must give place. Still he had sworn to be the friend for life of Dean, and the struggle in his savage breast, to satisfy his sense of duty to his tribe, and at the same time to his friend, gave rise to emotions that he could not conceal from his Squaw. Though children of the forest, their devotion to each other had given rise to, and kept alive feelings as keen, and observant eyes as sensitive, to detect the sorrows of each other, as if these estimable, but too often absent, amenities of married life, had resulted from the refinement of highly cultivated minds.

The deliberations of chiefs in council were secret; no women were allowed to take part in them, or to be present when they were held. Nor were the chiefs permitted to divulge the result of their decisions, until they were formally announced to the tribe by the head chief.

The state of mind which the conflict in his breast produced, rendered it impossible for Han Yerry to conceal from his wife that some unusual excitement, of no ordinary character, was harrowing his most sensitive feelings.

Seeing that it was impossible for him to avoid some violence on one side or the other to what he deemed to be his strict line of duty—for he must either divulge the proceedings of his council, or run imminent risk of sacrificing the life of his friend—Han Yerry resolved to tell his wife the true cause of his distress. He knew well his Squaw's energetic character, and her tender regard for Dean; and it is by no means impossible that he thought it likely that her fertile imagination and ingenuity would devise a way to save their friend, without his own honor being directly compromised in the transaction.

The instant that Han Yerry had made this unlooked-for communication to his

wife, she understood the delicacy and difficulty of her husband's position, no less than the danger of her adopted son. The fire of woman's anger flashed for the moment in her eye, with the vividness of lightning. But as transient as lightning was its presence. Thoughtful for a few minutes she sat motionless; then springing from her seat she exclaimed:

"By the Great Spirit, Han Yerry, our white son shall not die! But leave all to me. Do your duty, and I will do mine. You see this cup of water. When the council have decided, if our son is safe drink it; if not, pour it out on the ground."

Having said this Onata, without waiting for a reply, ran at once to her friends Howala and Hama, whose affection for Dean she knew to be little less than her own, and in conclave together the three heroines (for such the sequel will disclose they proved themselves) meditated over the matter. Numerous were the plans that they discussed, first adopting and then rejecting them, for securing the safety of their friend. At length they resolved upon their course.

No sooner had this been resolved upon than Onata started off to apprise Dean of his danger, and to prepare him for its consequences. He was, as may be supposed, astounded at the announcement, and had he not known that he could place the most implicit reliance on his informant, he would have distrusted the correctness of the intelligence. Having told him all she knew, her aged cheeks the while overspread with tears, she desired him to remain quiet. To take no step himself for security, nor to attempt escape, assuring him that should her tribe, unfaithful to him as their son, and ungrateful for the many services he had rendered them, determine upon his destruction, that she had secured a mode of escape; but she steadfastly refused to disclose to him the means by which it was to be effected. To his earnest desire to know how she could be sure of success, her only reply was: "My son, you are safe; the Great Spirit has given your life to me. You will be safe."

Notwithstanding his confidence in the sincerity of his Indian mother, and his knowledge of her ability in that peculiar species of cunning which forms so prominent a feature in the life of uncivilized man, he was by no means so confident that he was as remote from the threatened danger as she had assured him.

His first thought was to fly instantly; but the impracticability of removing his wife and children, one an infant, without exciting suspicion in the Oneidas, by whom the vicinity of his abode was thickly surrounded, precluded the possibility of making the attempt. He resolved, therefore, to wait the course of events until some mode appeared possible to avert the catastrophe. And knowing that to tell his wife of the threatened danger, would only be to create a pang of misery which he would have no mode of soothing, he determined to confine to his own breast a woe that providence alone could avert.

The councils were renewed from time to time, and were as often postponed through the strenuous efforts made by the chiefs friendly to Dean to save him, for several weeks, until at length the fatal die was cast, and the formal decision came to that Dean must expiate with his blood the crime of the unknown murderer.

Han Yerry and his wife had by a kind of tacit consent observed to each other a perfect silence on the subject of the councils; but no sooner had the dreadful issue of the deliberations been pronounced, than Han Yerry hurried home, took up the cup of water, and dashed it to the ground.

His wife turned pale on the instant; the next, recalled the lightning to her eagle eye, and she ran with the speed of the antelope (for woman's vengeance

nerved her aged limbs) to join her confederates on mercy's errand.

A bitter winter's night had closed in with unusual severity around James Dean's woodland home; the wind rushing in gushes through the leafless forest, lulled for the moment only to gather strength, as it seemed, to reiterate with redoubled might its previous efforts to drive all obstacles before it, that crossed its boisterous tract. The rain, made plaything by the air, was hurried downward and onward by its impetuous force, and threatened to beat in the well-barred door.

Dean awoke by the uproar of the contending elements, lay pondering over the phases of his dangerous position; and calculating in every way his imagination could devise, the chances of his o'erhanging fate.

The gale lulled for a few minutes, and he was again trying to sleep, (a solace and relief that for some weeks now, his anxieties for those to him more dear than self, had almost denied his wearied frame,) when to his horror the war whoop of the Oneidas burst suddenly upon his maddened ear, and he doubted not that *he* was the object of their rage.

Waking his loved wife, he quickly *now* told her his fears, desiring her to keep quiet with her little ones, whilst he went to receive the Indians in the adjoining room, and endeavored to turn them from their purpose. Commending his wife and children to HIM who careth for the widow, but with aching heart, (for he presumed his Indian mother had failed in her intended purpose for his relief,) he left his wretched family, and went to meet his fate.

Eighteen chiefs entered, whose solemn countenances and war-dresses at once announced their purpose. Amongst them was Han Yerry, whose downcast aspect and heaving breast, bespoke the wretchedness that dwelt within!

The head chief immediately entered upon the object of their visit.

"We come," said he, "to take your life! To you we bear no ill; but the justice of our ways demand it. One of our brothers has been killed by a white man; and in the world of spirits he can not have peace till we have given to the Great Spirit a white man's life. Our council has resolved that yours must be that life, and duty, therefore, brings us here. You must die. If you have a word to speak, we will hear."

"My friends," said Dean, "you do me much wrong; and yourselves no less. Although a white man, I am one of you. You took me for a son into your tribe. You taught me your ways of living, and your laws; and by your laws, you know that you must seek vengeance of the murderer's tribe; not of your own. I therefore am free, and your council must think again. Besides, was I not of your tribe, would the Oneidas take the life of an old friend that has for years brought benefits upon them? Would you make my poor wife a widow, and my dear children fatherless? No, no, Oneidas, I know you well. You have warm hearts, and love *your own* dear pappooses too well to wish to see *mine* wretched and forlorn."

"We know you well," replied the chief, "and sorry are we for your fate. 'Tis not for vengeance that we seek your life, but for the happiness of our poor murdered brother. True, you are our son, but you are white man still, and that will satisfy the Great Spirit. For your wife, your children, we will well provide. Your land shall be theirs, and more will we give them if they want, as we gave this to you. But you must die. Our chiefs in council have the death-lot cast, and so must your lot be."

Poor Dean felt that his chance of life was ebbing fast, without vestige of hope, when suddenly the door opened, and Onata entered the apartment. She stood by the entrance without speaking. Another minute and Howala entered also, and stood beside her companion; a

pause, occasioned by so unwonted an intrusion, was broken by the door opening a third time, and Hama appeared, and placed herself by the other two women. The three stood motionless, with their blankets drawn closely around them.

The chiefs appeared to be astounded at the hardihood that had induced the women to intrude into their presence, when they were met in council; and for a little time they waited in silence, apparently expecting the women to tell the purport of their visit. The latter, however, neither moved nor spoke.

At length one of the chiefs desired the women to retire. As before, they remained motionless and silent.

The head chief then addressed them, commanding them instantly to quit the place, and leave them to finish their business.

Onata immediately replied,

"Oneidas, I know your business here. You come to take this good white man's life. He is my son—your son, for you gave him to me for the tribe, and he is one of us. But he is more; he is our friend with the white man. He has for a hundred moons been faithful to us, and has made the white mans of this country love us. He has saved our brother Omi's life, and for it, all but gave his own. Curst be that chief that scalps this white man's head. He is my son, he is son to Omi's mother and his wife now here, and the first blow that falls upon his head shall plunge these scalping knives into our breasts. Never shall Oneida's daughters live to see that white man murdered by his friends."

As she gave utterance, with the vehemence of intense passion, to the concluding words of her harangue, the three heroines opened their blankets and displayed each, in their upraised hands, a gleaming blade, the bright luster of which afforded evidence that their resolves were not empty threats.

Had a thunderbolt descended from the stormy heavens above them, the effect upon the chiefs could not have been more electric. They seemed petrified and lost in astonishment at the scene before them, and they gazed for a short time vacantly around.

Han Yerry, availing himself of the consternation and uncertainty which he saw visible in their countenances, exclaimed,

"Oniedas, we are wrong! The Great Spirit has caused this. These women could not do this but for Him. Let us reverse the decree. 'Tis not his will that the white man should die!"

Lost in amazement, the chiefs unanimously adopted Han Yerry's proposal, the decree was reversed on the spot, and James Dean owed his life to

THE HEROINES OF ONEIDA.

Note.—The leading incidents in the above tale in the life of the Dean family are founded on fact, with the exception of that with which it opens relative to the little girl's visit for twenty-four hours to the Indians. This, however, is a true account of a similar circumstance that occurred to another family about the same period of time. It has been introduced to increase the interest of the narrative, as well as to point out the importance of circumspection in the exercise of a sound *discretion* in our conduct to others.

The influence that *slight* circumstances frequently exercise upon our future welfare, is oftentimes far beyond their apparent sphere. A courteous word or even gesture has often won an opinion, that subsequent intercourse has ripened into esteem and friendship. And few people, we fear, have arrived at what are usually called "years of discretion," without being able to charge themselves with many instances of *indiscretion* that have weighed, in their unforeseen results, heavily upon their after life.

We must not close this note without adding that meed of praise which the female character undoubtedly deserves, when viewed in the general, for perseverance and true moral courage. In the hour of difficulty and danger, whatever may be its kind, both history and daily experience prove that (after the first

outburst of alarm) the *weaker* sex almost universally at such times sets an example of energy, combined with patience, endurance and resignation which her *stronger* helpmate finds a useful stimulus to *his* failing powers!

For the Am. Farmer's Magazine.

CULTURE OF THE MIND.

BY WM. H. GAIGE.

"Mind makes the man—
Want of it the fellow."

This motto, somewhat altered from Pope, has a peculiar bearing upon the agriculturist. The farmer possesses all the advantages of other classes of the community; and if he will improve his mind, his influence will be as potent, and his example as salutary, as the influence and example of any other profession. The richest soil will produce neither bread nor meat without culture. Good culture not only improves the mind and fits it for high mental qualification and enjoyment, but it lightens the toils and greatly increases the profits of labor. Franklin owed his usefulness, his fortune and his fame to his early habits of study, of industry, and of virtue. Without these early habits he probably would have risen to neither fortune nor fame.

Some minds, like some soils, are richer than others, yet even apparently sterile minds like unfertile soils may by good culture be made to yield great returns. However menial and servile agricultural labor may have been considered among the privileged classes of Europe, and however degrading it may yet be held by the would-be aristocracy of America, it has commanded the highest respects of good men in every age, and constituted in our country the favorite study of a Washington, a Jefferson, a Jackson, a Madison, a Monroe, and a Humphrey, of an Livingston, a Shelby, an Armstrong, a Lowell, a Lincoln, and a great many others whose names will stand out in bold relief among the future annals of our country. Let then no young aspirant for fame and usefulness shun rural employment because it does not feed his hopes of distinction, and let no one engaged in this employment forego the opportunity which his condition presents of cultivating his mind as the surest means of sinking *the fellow* and rising to the dignity of *the man*.

Chaumont, N. Y., March 8, 1858.

From Dr. Waterbury's Lectures on Physiology and Natural History.

NATURAL HISTORY FOR THE YOUNG—THE CAT'S PAW.

Fair and softly Miss Pussy! Come and sit with us a minute. We'll smooth your back until you purr—become magnetized, as our friends the mesmerists would say, and then you must let us look at your foot, that dainty little foot of yours, that you take such nice care to keep from the wet.

First let us notice the soft pad at the bottom, on which she treads. How noiselessly she steals along through the dark! When she approaches, the long ears of the mouse, though they can detect the slightest rustle, hear no sound. When the ox or the horse moves as swiftly, the very earth trembles beneath his tread; but the whole cat tribe steal on their prey and doom them in death-like stillness.

Both these tribes of animals are alike in this—they walk on the ends of their toes; that is, what corresponds to the toes in man. Hence they are called *digitigrades;* to distinguish them from such flat-footed animals as we, and the bears—the *plantigrades*.

The feet of digitigrades are all made after one plan. In the horse and cow the toe nails are very thick and stout; in fact are *hoofs*, and enclose the pad, which is then almost as hard as horn, and is called the *frog*. In the horse there is but one toe, and consequently but one toe nail on each foot; but that one is made very large and hard, in order to bear fast travel on firm ground. In this respect the foot of the horse corresponds in structure to the iron rails on a railroad; while the cloven foot of the ox and other ruminating animals more nearly corresponds to the mechanism of a plank road. Hence the horse prefers dry, hard ground, and shuns wet, swampy places, for when his foot is once sunk in the mire, it is very difficult to draw out.

When the ox, however, treads on soft ground, his split hoof spreads a little as it sinks into the earth, so that when he begins to extract it, it becomes smaller, and comes out more readily. Hence oxen are better adapted than horses to boggy ground or deep snow, and this structure of the foot allows of a habit cows have of frequenting marshy pools in hot weather.

In the reindeer, an animal made to inhabit the polar regions, the two rudimentary toes above the heel, which in oxen and swine are called *dew claws*, are so large as to be used in deep snow, like the other toes; thus making the animal's foot spread over a great surface, like a snow-shoe; yet when the foot has sunk into the snow, it is drawn out as readily as that of the ox. The feet of birds that wade in marshes are made after the same plan, and for the same reason.

When we place the finger on the pad under the cat's foot, and press gently on the upper side of the toes with the thumb, four sharp claws protrude. Their points are like needles. The dog, the squirrel, and the woodchuck also have claws, but they are so exposed to the weather and the dirt, that they are dull. How are the cat's claws kept sharp?

By a very simple and beautiful arrangement. The last joint of the toe, that which supports the claw, *doubles backward* and to one side, into the space between two toes; so that when she walks she does not, like other animals, put that joint foremost, but rather the *second* joint. When the nails, together with the last joint, are doubled back in this way into the space between two toes, the cords which run to them are placed at such disadvantage that they can only move the toes for the purpose of walking. When the cat seizes her prey, however, a little muscle throws the last joint of the toe, that which supports the claw, over into the same position as in other animals, and then the claw is driven by the same muscle and with the same power with which the animal moves the foot. The tiger wields these terrible weapons with as much force as a horse kicks; so that a single blow from the front side of one of his claws, as the beast was leaping over, has been known to fracture the skull of a man.

In animals like the squirrel, made to inhabit trees, the claws are intended for holding fast to the bark, and so are not retractile like those of the cat tribe. One of the toes also is turned backwards, so as to act like a thumb in clinging to limbs and in holding nuts. By means of these thumb-like toes, squirrels run down a tree almost as readily as up.

In the sloth, a South American animal that lives almost exclusively in trees, hanging by its fore paws, the claws of the fore feet are enormously large and long—quite too large to be retracted like those of the cat. When on the ground, they must be doubled directly under the foot, so that the animal walks very awkwardly, as it were on its knuckles.

Mr. Jefferson, having discovered some of the claws and bones of the foot of an extinct animal of this sort, supposed they must have belonged to a kind of lion, as large as an elephant. He sent the bones to M. Cuvier, the great French naturalist, who, on examining them, could find no marks of the backward and sidewise joint, that exists in the cat tribe, and so concluded the animal to have been rather a hugh sloth, than a lion.

SCRAPS OF TENNESSEE.

BY A. L. B., A TENNESSEAN.

It has been but about two centuries since the first one of the Japhetic race set foot upon the soil of this new well peopled State. The sons of Shem, found here, had no scepter of empire or of effectual government. Possessing some art, they had cultivated the soil but little, they were idolatrous in religion, in fact but little less savage than the wild beasts upon which they lived. No refugee from Ham's progeny had escaped hither. The Red man had absolute sway. The Christian had not long traversed the country until he named the country in tragical parlance the "Bloody ground." Penetrating still deeper into her unbroken cane brakes he added "The *dark* and bloody ground." Digesting what of history relative to Tennessee, it was in 1665 or thereabouts that the first white man inhaled the vital fluid, or trod the ground of Tennessee. The

company was from Virginia. The buffalo, bear, panther, wolf, deer, and other wild beasts fed in thousands on the high rustling cane, or skulked in the dark ravine to grind the bones of the lesser animals. The Indian's arrow had no music or fire to alarm them. If their then tameness could be now experienced or told, the sight or recital would doubtless astonish the most valiant. Most of the animals named have followed or receded in advance of their landlords, westward, for westward the star of Empire took its way. Well might the sturdy pioneer in the year stated exclaim, "I am richer than he who had his flocks of a thousand hills," because he knew no king but God. These twenty decades have passed away. *How?* The Tennessee pioneer suffered, lived, and died. What were his feats of daring will never be half told—no historian has performed half the task. Yet upon the true heart of every Tennessean is inscribed as upon a lasting cenotaph some of the honor's due, "*requiescat in pace*," for *Olim meminisse juvabit*. There is a melancholy consolation in retrospect of the past, though the life's blood of many watered the ground under the stroke of the tomahawk of the swifter savage. The future recollection will be pleasing, when we compare what Tennessee is to be, and what she now is. I will leap over the space intimated as perhaps uninteresting, and proceed to quote from recent data.

In 1850 Tennessee had attained a high rank in comparison with her sisters. The euphony of the Indian *Tanasee* was nobly contended for in the United States Congress as the appropriate name for this territory by her valiant son, Jackson. The independent integral Franklin or Frankland, as a sovereign state, had died away. The name, in Indian dialect meaning "a spoon," was given instead. She wears the euphony brighter and more beautiful, whilst the emblem, the spoon, obtains. Some idea, I think, in that name. She has an area of 45,600 square miles, five-sixths arable—in size is about medium in the sister family. She had over one million of inhabitants, being the fifth in population in the Union. In improved acres the eighth. In live stock the seventh. She produced 52,137,863 bushels of Indian corn, while ten years before she exceeded all her sisters in the growth of this valuable cereal. But she stands at the head of the galaxy in home made manufactures, and averaged about $3 to head of population in value of articles sold that year. She strikes hands with eight of her sisters in geographical location, an emblem I claim of the social character of her children. Two Presidents have hailed from her border. I don't mean to discuss whether the old Dominion is justly entitled to the appellation of the mother of statesmen, but I claim Tennessee, as have others, to be the mother of States. She has peopled more States than any other. For the truth of this proposition I refer to the emigrants in all the States south and west of her. The warlike and lethal weapon of the Tennessee soldier has been beaten into plowshares and pruning-hooks, and from her fertile knobs and loamy valleys, and still more productive bottoms, she has now in store from the crop of 1857 a surplus of the necessaries of life sufficient to feed for the present year twice her population. All you have to do is send in your orders, and we would like to have you all speak at once. *More anon.*

MILL BEND, Tenn., March 5, 1858.

For the American Farmers' Magazine.

INSTITUTIONS OF MICHIGAN—HER PROSPECTS.

BY A NEW-YORKER.

AN Eastern man being asked his opinion of the West, replied, "It is a most beautiful country, and for farming can not be surpassed, but, for my part, I had rather live at my old home in the

East, where I can see hundreds of young people pass my window daily to and from the halls of learning, than be proprietor of the most extensive farm in the West." He loved learning, and loved to see those who were acquiring it. But the West will not always remain behind in this important particular. Already has a decided stand been taken in favor of education. Michigan can claim warmest praise for the part she is taking in the cause of education. The same interest that prevails at the East in regard to educational privileges, is noticeable here. The fact that the only Agricultural College in the United States is located in this State, is a favorable indication that, ere long, she may rank among the first in education, if not in agriculture.

Michigan has won the title of a temperance State by the decided interest she has manifested in favor of this cause. Temperance organizations were formed, and the beneficial results were apparent from the influence they possessed. Such seeming the earnest wish of the people, a prohibitory law was passed. For a time the good efforts of such a law was seen; but the officers whose duty it was to enforce it, for fear of losing their offices, ceased to prosecute its violators, and, until quite recently, no effect has been made to stop the sale of liquor. Now, however, we are glad to observe that the people are taking the matter in hand, and in the towns where prosecutions have taken place, no liquor is sold publicly, except for medicinal purposes. If the thing is pushed forward, Michigan may deserve the name of a "Temperance State."

If there is anything in which this State is deficient, it is her *Press*. The number of her presses is large enough, but they seem to be in the hands of party demagogues, who look only to their own interests. The press does not exert that influence it is capable of producing. A turbid river bears a ship upon its bosom quite as well as though its waters were clear; but when drank, the water does not quench thirst, but produces sickness. The press of Michigan bears *news* to its patrons; but the moral tone which should pervade the columns of all newspapers, is seldom found in those published in this State. 'Tis true there are a few excellent papers published here, but their numbers should be multiplied.

A large number of the farmers in this section commenced their labors without sufficient capital, and a kind of "slip-shod" method of farming has, in many instances, been commenced. A patch of "girdlings" in the edge of the forest, and a log house among them are indications of this kind of farming. But thrift is visible in many places. Elegant farm-houses are being reared around us, and the march of imrpovement is apparent. Here, too, can be witnessed the almost wonderful effects of draining. Our farmers know the value of this invention, and their marshes are transformed into the most beautiful meadows by a thorough practice of this system.

The winter of 1857 destroyed nearly all the peach trees here, and fruit growers seem to think it useless to try again to establish this fruit. Other fruit flourishes well, and in a few years fruit will become one of the principal productions of the State.

The abundant yield of grain, and the high prices of 1856, induced the farmers to contract debts, which they intended to liquidate this fall; this could have been done readily enough had the prices for grain remained high, but the extremely low prices has made the farmers unable to meet the demands of the storekeeper. In many cases the prices paid for grain will scarcely pay for carrying it to market. The merchant becomes enraged at the long delay of the farmer in making payments, and dispatches an officer to enforce payment. Thus it happens that many are sued for debt who never were before sued in their lives

The farmer's credit is impaired—for the merchant spares no one—and in many cases discouragement comes upon the new-comer, who is not long in denouncing the tradesmen of the West. The press is unjust in its censure of the farmers for not selling their grain when the prices will not pay for harvesting.

Michigan needs union of sentiment. There are so many who entertain different thoughts on subjects of interest. I have seen a man disregard his own interest, for the sake of opposing the wishes of his neighbor. This feature can be observed to a greater extent in Michigan than in the State of New-York. Give this State *union of sentiment*, and a free, unsullied, uncontaminated *press*, and she will rank among the first States in the Union in every particular.

O. A. Goold.

Antrim, Mich., Feb., 1858.

SPRING.

AN ACROSTIC.—BY J. MC. C.

S-pring with its balmy air invites the muse with tender strain,
P-ortraying with a gentle hand its sunshine and its rain,
R-eflecting in its ope'ning flowers the life and bliss and love—
I-n store for every child of God in yonder courts above;
N-ew pleasures there will fill the soul,—no winter with the spring—
G-ive then your heart unto your God,—an humble offering.

New-York, 1858.

(From the *British Tribune*, Canada West.)

THE ENGLISH LANGUAGE.

Celtic was the language originally spoken by our ancestors, which, by successive invasions, gradually changed its form into the Anglo-Saxon, which became developed into our modern English. Chaucer and Wickliffe were the first to make use of the spoken language in writing; and hence our language is not yet five hundred years old. It assumed in the Elizabethian age its most perfect form. The received Vernacular Bible has helped to render our language more stable. Our language has never yet been equalled, take it in all its branches. It is more widely spoken than any language under the sun; and it is highly probable that it will, in future, become the universal tongue. That is to my mind its glorious destiny.

READING FOR FARMERS AND MECHANICS.

Mr Editor:—Believing the old adage to be no less true at the present time than in its infancy that "reading is the avenue which leads to intellectual greatness" and feeling it the duty of man, whatever may be his profession to secure for himself the benefit of the experiences and investigations of others, I have thought proper to solicit a space in your columns in which to offer a few suggestions on the propriety of the farmers of this county securing for themselves more agricultural reading matter, and not only the farmer but the mechanic should be supplied with a journal containing well-considered, reliable articles on all the leading questions which directly and materially affect the interests of both. I believe that every man should be intelligent in his business, that the great industry of the country should be wisely conducted, that it is simple nonsense for him who "feeds the race" and who "smites the soil and the harvest comes forth" to remain forever in the furrow, or the wielder of the plane and mallet to for ever lie hidden beneath the litter from his bench. I would that every laboring man would feel the importance of taking that position among his fellows which belongs to those who hold the balance of the world's life in their stalwart hands.—*Courtland County Republican.*

☞ Great men never swell. It is only your "three-cent individuals," who are salaried at the rate of two hundred dollars a year, and dine on potatoes and dried herring, who put on airs and flashy waistcoats, swell, blow, and endeavor to give themselves a consequential appearance. No discriminating person need ever mistake the spurious for the genuine article. The difference between the two is as great as that between a barrel of vinegar and a bottle of the "pure juice of the grape."

Scientific.

CHEMICAL.

Ammonia.

The fact stated in our last, that certain substances, usually found on the farm, or, if not found there, easily obtained, as clay, charcoal, and swamp mud, or peat, have a strong attraction for ammonia, affords ground for a practical application to farm practice.

Clay and charcoal are the two substances to be relied upon for retaining the ammonia of manures. It is true there are other substances which will answer the purpose. Sulphuric acid, for instance, if diluted with water and sprinkled about the stalls and the fermenting manure heaps, will change the carbonate of ammonia into a sulphate, which is not volatile, and will therefore prevent the dissipation of the non-volatile carbonate. Muriatic acid produces a like effect—changes the volatile carbonate of ammonia into a non-volatile muriate, and thus prevents its escape. Plaster, to a limited extent, and especially in a moist state, produces a similar effect.

But the farmer would sooner use such substances as his own farm affords than be dealing with the apothecary. Sulphuric acid is sold by the quantity for 2½ cents a pound. Country apothecaries seldom charge less than 12½ for small quantities. Besides, these acids are not things that the farmer is much conversant with. They are unsafe, unless managed with discretion and care. Practically, then, clay and charcoal are the substances to be relied on for retaining ammonia.

Clay, constituting as it does a portion, though in some cases a very small portion, of all soils, is the principal thing which gives them the power of retaining ammonia; and it is this mainly for which loam is valuable for composting with manures as a retainer of ammonia.

Charcoal, on the other hand, is what gives to peat, leaf-mold, earth gathered from old hedges, etc., their value as retainers. Is there charcoal in these? Strictly there is not. Charcoal is the result of a slow combustion, with partial exclusion of air, by which the oxygen and the hydrogen of wood are driven off, while only the carbon is left. But decay is but a sort of slow combustion—a combustion so slow as to produce but little heat; and there is a point in the process of decay where the same effect has been produced—the oxygen and hydrogen gone from the decaying body, and nothing but the carbon left. If a wisp of straw were ignited, and then suddenly extinguished by covering it over with something that would exclude the air, it would be reduced to charcoal. But if the same straw were left to decay in the soil, or wherever the air is partially excluded, there would be a point in the process where it would be almost as black, owing to its carbonaceous character, as if charred by fire. Swamp muck, leaf mold, indeed any vegetable matter that has turned black in the process of decay, may therefore be regarded as a sort of charcoal.

It is often recommended to use an abundance of charcoal—coal dust—with manures; and this is well, where it can be readily obtained, since nothing is better as a retainer of ammonia and other gases. Where it can be readily obtained, it should be used freely for this purpose—thrown into the sink run, the privy, the pig pen, or wherever foul gases are likely to escape to the injury of the health, or to diminish the value of a fertilizer.

But as coal dust, in most places, can not be had in sufficient quantities, swamp muck, or any black mold, made up as it is mostly of vegetable matter, reduced

to a state strongly resembling charcoal, affords a good substitute—is very effective in seizing hold of and retaining floating gases, and especially ammonia.

In view of what we have said, let us ask and answer three practical questions:

1. What is the use of applying clay to a sandy soil? In addition to the physical effect of amending the soil, so as to render it more solid and more retentive of water, it serves to aid the feeble powers of such a soil for retaining the gases generated from the manures put into it, especially the ammonia, for the nutriment of plants. On many a light soil, we suppose one load of clay (pulverized by a winter's frost) and one load of barn manure will benefit the soil and produce an increase of crops equal to two loads of manure without the clay.

2. Why apply swamp muck, leaf-mold, hedge cleanings, etc.? These also tend to a physical amendment of soils. If a soil be very sandy and light, they render it more compact, more retentive of water, better suited to the conditions of vegetable growth; if clayey and compact, they open its pores and make it more pervious to the air; and in their further decay in the soil, they afford carbonic acid largely, and, in a small degree, ammonia, as food for growing plants. Their own matter, like that of ordinary manures, is manufactured into new and living forms. But their main object after all, especially when used in the yard, stall or pen, or for the purpose of composting, before being applied to the soil, as they ought in most cases to be, is to retain the ammonia of other manures. And here again we say that on many soils—on nearly all that are of a lightish texture and not very well supplied with organic matter—one load of swamp muck composted with one of barn manure, will give just about as good results as two loads of manure. The farmer, therefore, who has a muck bed on his premises, has the power of doubling the quantity, without much if any deteriorating the quality of his manures.

3. Should the farmer make a liberal use of these substances, notwithstanding the expense of the labor required? We think he should, because we think that the labor so expended will save a greater amount of ammonia and other fertilizing matters than an equal money value will bring from the Chincha Islands.—Ed.

METEOROLOGICAL.

CHAPMAN'S PRECALCULATIONS.

[*Entered according to Act of Congress, in the year 1856, by L. L. CHAPMAN, in the Clerk's Office of the District Court, for the Eastern District of Pennsylvania.*]

FIRST DEPARTMENT.

EXPLANATORY.

THE TERM POSITIVE is here given to conditions abounding *more* with *vital electricity*, inspiring *more* health, vigor, cheerfulness, and *better* feelings for business intercourse, etc., and consequently *greater success*, *enjoyment*, etc.

THE TERM NEGATIVE is given to deficient, or less genially modified electrical conditions, which consequently *are more unfavorable* to health, feelings, business, social intercourse, etc.

These conditions *do not* depent on the weather. A negative condition is often *fair*, and a positive condition *cloudy*, and *vice versa*.—*w* shows weak conditions.

¶ Indicates Sundays.

FIFTH MONTH, (May,) 1858.

	Tendency.	*Time o'clock*
1st,	Positive, from 1 to 5 morn.	
	Negative, from 6 morn to 11 eve.	
2d,	¶Positive, from 1 morn to 4 eve, *w.*	
	Mixed, from 5 to 12 eve.	
3d,	Negative, from 1 to 8 morn.	
	Mixed, from 8 to 10 morn.	
	Negative, from 10 morn to 12 eve.	
4th,	Positive, from 6 morn to 9 eve.	
5th,	Positive, from 6 morn to 12 eve, *w.*	
6th,	Negative, from 1 morn to 12 eve.	
7th,	Negative, from 1 morn to 1 eve.	
	Positive, from 2 to 12 eve.	
8th,	Positive, from 1 morn to 12 eve.	
9th,	¶Mixed, from 1 morn to 9 eve.	
10th,	Negative, from 1 to 9 morn.	
	Positive, from 10 morn to 12 eve, *w.*	
11th,	Negative, from 1 morn to 12 eve.	

12th, Positive, from 1 morn to 12 eve.
13th, Positive, from 1 morn to 1 eve.
Negative, from 1 to 12 eve.
14th, Positive, from 6 morn to 12 eve.
15th, Positive, from 1 morn to 6 eve, *w.*
Negative, from 7 to 12 eve.
16th, ¶Negative, from 1 morn to 3 eve.
Positive, from 4 to 12 eve.
17th, Positive, from 1 morn to 4 eve.
Negative, from 5 to 10 eve.
18th, Positive, from 1 to 11 morn.
Negative, from 12 noon to 10 eve.
19th, Mixed, from 1 to 8 morn.
Positive, from 9 morn to 3 eve.
Negative, from 4 to 8 eve.
20th, Mixed, from 1 morn to 1 eve.
Positive, from 2 to 12 eve, *w.*
21st, Negative, from 3 to 11 morn.
Positive, from 12 noon to 12 eve.
22d, Positive, from 6 morn to 9 eve, *w.*
23d, ¶Mixed, from 7 to 10 morn.
24th, Negative, from 7 morn to 12 eve.
25th, Positive, from 1 morn to 12 eve.
26th, Positive, from 1 morn to 3 eve.
Negative, from 4 to 12 eve.
27th, Negative, from 1 morn to 12 eve.
28th, Positive, from 1 morn to 12 eve.
29th, Positive, from 1 to 11 morn.
Negative, from 12 noon to 12 eve.
30th, ¶Negative, from 5 morn to 10 eve.
31st, Negative, from 6 morn to 5 eve.
Positive, from 6 to 12 eve.

SECOND DEPARTMENT.

The changes are four minutes *earlier* for each degree of longitude (60 miles) west. Difference of latitude in the same meridian is immaterial. The dry conditions are fair, and the damp conditions cloudy or wet, at least three or four times out of five in the average. When fair, the damp conditions diffuse a cool, damp sensation through the atmosphere.

Blanks indicate very weak, or mixed, or uncertain conditions.

¶ Indicates Sundays.

FIFTH MONTH, (May,) 1858.

Time o'clock. Ray-angle. Tendency.

1st, At 5 morn Y, warm, dry.
At 12 eve Y' warm.
2d, ¶At 9 morn R, warm, dry.
At 3 eve V, cool, damp.
At 4 eve G, warm.
At 7 eve GV- cool, damp.
3d, At 8 morn GO" damp, windy.
At 9 morn Y,, warm, dry.
At 10 morn V' cool.
At 12 noon G' warm.
4th, At 5 morn I" cool.
At 10 morn R,, warm, dry.
At 3 eve BR- warm, windy.
At 4 eve V,, cool.
At 5 eve O,, ——
At 9 eve G,, warm, dry.
5th, At 3 morn OV" damp, windy.
At 4 eve O, ——
At 12 eve .. wind stirring.
6th, At 1 morn Y" warm, dry.
At 7 eve B" wind stirring.
At 9 eve R" warm, dry.
7th, At 1 eve G" warm.
At 9 eve I' cool, damp.
8th, At 4 morn BI,, cool, damp, windy.
At 11 morn R,, warm.
At 12 noon V, cool, damp.
At 3 eve Y,, warm.
At 12 eve I,, cool, damp.
9th, ¶At 6 morn R,, warm, dry.
At 7 morn O,, ——
At 8 morn .. warm.
At 12 noon OR" windy, exciting.
At 9 eve Y' warm.
At 12 eve G,, warm, dry.
10th, At 9 morn O' ——
At 11 eve O, damp.
11th, At 4 morn I" cool, damp.
At 5 morn G' warm, dry.
12th, At 10 morn I, cool.
At 3 eve YB- wind stirring.
At 12 eve B- windy.
13th, At 5 morn I,, cool, damp.
At 12 noon R- warm, dry.
At 1 eve V- cool.
14th, At 11 morn G- warm, dry.
At 5 eve YI,, cool, damp, windy.
15th, At 11 morn .. warm.
At 6 eve O, ——
At 9 eve B' wind stirring.
16th, ¶At 7 morn Y' warm, dry.
At 3 eve YO" windy.
At 9 eve B,, wind stirring.
At 12 eve .. damp.
17th, At 6 morn I- cool, damp.
At 8 morn O,, ——
At 10 morn Y,, warm, dry.
At 1 eve R,, warm.
At 3 eve V,, cool.
At 4 eve B, wind stirring.
At 10 eve G, warm, dry.
18th, At 9 morn YV, cool, windy.
At 11 morn V, cool.
At 10 eve B" wind stirring.
At 11 eve G,, warm, dry.
19th, At 8 morn O" ——
At 3 eve YR- warm, dry.
At 6 eve Y" warm.
At 7 eve V" cool, damp.
At 10 eve G, warm, dry.
20th, At 11 morn YV- cool, windy.
At 1 eve I' cool.

At 3 eve O, ——
21st, At 2 morn B, wind stirring.
At 5 morn, end of the zodiacal period, or natural month.
At 11 morn G" warm, dry.
At 2 eve O,, ——
At 5 eve I,' cool.
22d, At 1 morn R,, warm.
At 4 eve I, cool, damp.
At 9 eve B, wind stirring.
23d, ¶At 7 morn R' warm.
At 9 morn RV- cool.
At 10 morn Y' warm.
24th, At 2 morn G,, warm.
At 3 morn I" cool.
At 4 morn .. cool.
At 7 morn .. warm.
At 8 morn GI, cool, damp.
25th, At 10 morn Y' warm, dry.
At 10 eve B" wind stirring.
26th, At 2 morn GO, damp, windy.
At 7 morn G, warm.
At 8 morn O- ——
At 3 eve I,, cool, damp.
At 11 eve R" warm, dry.
At 12 eve V" cool.
27th, At 1 eve Y" warm, dry.
At 9 eve I' cool, damp.
28th, At 5 morn .. warm.
At 1 eve GV, cool, windy.
At 5 eve I, cool.
At 9 eve B, wind stirring.
29th, At 11 morn GR, warm, dry.
At 4 eve G" warm, dry.
At 10 eve O' ——
30th, ¶At 4 morn R, warm, dry.
At 7 eve V' cool, damp.
At 10 eve R' warm, dry.
31st, At 1 morn B,, wind stirring.
At 3 morn O,, ——
At 5 eve I" cool.

GENERAL REMARKS.

Cool Periods, longer and more prominent, are more liable near the 5th, 16th, 20th.

Greater tendency to windy, cloudy or stormy periods, or gusts, near the 2d or 3d, 5th, 8th, 9th, 14th, 16th, 18th, 20th, 23d, 25th or 26th, 28th.

Periods of greater electrical deficiency, 29th to 31st.

Natural tendency of the zodiacal period from the 1st to 21st dry. From the 22d to 31st damp.

GENERAL BEARINGS.

From the 1st to 6th a mixed condition prevails, in which the negative predominates. From the 7th to the 29th the general tendency is more positive with the exception of short intervals near the 9th, 16th, 19th. From the 29th to 31st negative.

Near the above negative dates, especially the 3d, 5th, 9th, 16th, the atmospheric conditions tend more to nourish combustion, rendering fires and explosions more liable. They also tend to more excitable contentious feelings and to spreading disease in epidemic form of an inflammatory or typhoid nature as small pox, scarlet fever, sore throat, etc.

COINCIDENCES.

From March 1st to 31st.—The brilliant aurora on the morning of the 12th inst., rousing the fire departments, etc., occurring at a date given to the public some three weeks previous, as more predisposing to auroras, is another of those coincidences which give the impress of unevadable truth to the reality of the discovery I claim.

The cold interval from the 3d to the 7th was strongly indicated in the table by the four combined currents ending with V or I on the 3d, (BI, GV, BV" BV,—*see explanation,*) more than occurred on one day so ending, for months previous or since. This interval was more marked than the subsequent cooler alterations.

Of the periods given for greater windy, cloudy, or stormy tendency, 10 of the 14 were fully corroborated.

☞ Early mailing to distant patrons precludes the convenience of giving the coincidences of the immediate preceding month.

GENERAL EXPLANATORY REMARKS.

The First Department, giving the positive and negative electrical conditions of the atmosphere, constitutes the chief importance of this document.

These alternating conditions not only affect all the minutia of life, health, and enjoyment among mankind, but also bear universally upon the various animal and insect tribes, and even upon the vegetable world. For electricity is the universal principle of *physical* vitality.

By glancing at the first department *synopsis* the physician can usually judge whether he will find his patients better or worse. The out-of-door business man may also judge when in a strongly positive day, he may succeed more in all business depending on the will of others, especially of the sensitive, than in often

several negative days—*not from luck, chance, or fortune!*—but because mankind usually act as they feel.

The synopsis is of universal bearing and application, and of great usefulness to all professions and classes of mankind.

The general tendencies are given, but their effects vary according to mental discipline and constitutional sensitiveness. A robust person may only feel a shade pass over his mind from a condition that would prostrate another by sickness.

THE SECOND DEPARTMENT, or synopsis of changes in the atmospheric temperature is less important, because not infallible. Yet it is sufficiently correct to be deemed useful by many. The changes usually corresponding to within the hour before or after, three or four times out of five in the average.

In this synopsis the first letter of each colored ray is given, instead of the word in full, after the words morn, eve. *They* show the angle of the solar spectrum in which the current of reflected light that produces the condition is intercepted. *Thus*, R for the red ray, O for the orange, etc. *Currents* intercepted in the angles of the Y., or R., or G., rays tend to a warm and usually fair temperature. R, sometimes showery. V, or I, to cool and damp—three or four times out of five cloudy or wet. B, and often V, to electrical, and more or less wind stirring. O, to variable—in most cases cloudy or wet; but when dry to sultry or exciting. *Single* letters show single currents. *Double* letters show combined currents which usually operate longer and with greater force; often so superceding the effects of passing single currents that the *latter* becomes only modulations in a long dry or wet, warm or cool period, induced by the former. They can not be calculated so accurately as the single currents, but seldom vary many hours.

Longer or more prominent cool periods usually occur near combined currents ending with V, or I.

Warm periods usually occur near combined currents ending with R, or G.

Windy, or cloudy, or stormy periods, or gusts, usually occur near combined currents which end with B, V, I, or O.

Periods of greater electrical deficiency are such as predispose more to vegetable defection or *blight*, to cholera, etc.

All the combined currents predispose more to electrical disburbances, earthquakes, auroras, etc.

Periods (.) in the place of letters, show currents under investigation—*Double periods* (..) combined currents—*Hyphens* (-) after letters show confluent currents—*Commas* (,) after the letters show positive—*Apostrophes* (') negative condition. See second department. *They* also show the force of the intercepted current. *One* comma or apostrophe shows weaker, *two* commas, etc., (,,") stronger currents.

Many of the weaker changes are perceptible only by instruments. Those instruments are the Prism, Thermometer, Barometer, Hygrometer, Electrometer.

TO AGRICULTURISTS.—The electricity supplied by the reflected light of the moon during her increase is more positive. During her decrease more negative. Hence fruit trees should be pruned, and vegetables growing above the ground should be sown, etc., between the first quarter and the full moon, to thrive best. Esculent roots, potatoes, etc., thrive best planted in the decrease of the moon.

THE ATMOSPHERE.

OUR atmosphere may be viewed as an ocean 50 miles in depth, and being extremely elastic, the lowest portions, or those nearest the earth, are under a pressure of 15 pounds to the inch. As by atmospheric tides this portion rises up the mountain side it expands, and its capacity by such expansion, for heat is increased. It therefore robs the heat from the dews of the mountain top, and causes the eternal snows, while the same portion re-descending by currents to the valley, gives up its latent as present heat, and renders them verdant. It may be viewed as Nature's porter, carrying and disseminating all the lighter portions of decomposition, and giving them up where most required under the organic law.

At all times a large amount of water occupying our globe is to be found in the atmosphere in the form of vapor, and during its motion it deposits this general lubricator of nature on all surfaces colder than itself. Every plant is kept moist by condensations from the atmosphere. Every particle in nature is lubricated by moisture thus supplied, and prevented from abrading itself. The under-draining, plowing, and general manipulation of the soil, are mere adjuncts to the admission of atmosphere for the deposit of moisture and of gases, foreign to itself,

but held mechanically in suspension. All chemical laws owe their activity to its presence, and even the effects of light, heat, and sound, would be unintelligible without it. Its refractive force prevents the sun's heat from aggregating to such an extent on the surface of our globe as to melt it, while its mechanical action spread over so immense an area causes all those manipulations which tend to assist mankind in accelerating the operation of Nature's laws. It is Nature's motor, and equilibrated to her will. It carries the decay of continents across the surface of oceans, and fertilizes islands; it is the vehicle by which the *farina fecundi* of plants meets the desires of organic life, and gives birth to varieties. It maintains precise proportions of its two constituents in their combination as atmosphere, despite extra quantities of either that may be thrown upon it, and thus, while one of its constituents, oxygen, will cause immediate apoplexy, if breathed alone by animals or plants, and the other, nitrogen, would cause *asphyxia*, from its inability to sustain life; still the two in the proportion in which they are combined, exhibits that function to which we are all indebted for continuous existence. It, in common with water, is Nature's regulator. All the known changes in inorganic matters would be arrested by the absence of either. It completes the chain of the wonderful machinery which, within itself, has all the elements of creative power developed through these engines from the primary principles emanating from a great first cause.—*Work. Far.*

TRANSFUSION OF BLOOD IN THE HORSE.

Mr. Farrall, an Irish veterinary surgeon, has published in the Dublin *Quarterly Journal of Medical Science*, a report of his successful experience in the transfusion of blood in the horse, in diseases attended with low vital action. Mr. F. says:

"Having selected a healthy young horse from which to obtain the blood to be transfused, I opened the jugular vein in the patient and in the healthy subject, and having inserted the tube into the vein of the healthy horse, I placed the india rubber tube in the tin trough containing the hot water, to maintain its temperature, and the other curved tube into the descending portion of the vein in the patient. As soon as the current from the healthy horse had completely expelled all atmospheric air, the blood flowed freely from the vein of one horse into that of the other in an unbroken current. The average quantity of blood transferred in each of these cases was about three quarts. I observed no particular symptoms to follow from the transfusion until two quarts or more had passed from one to the other; but as soon as about that quantity had flowed into the diseased subject, there appeared to be produced an amount of stimulation indicated by an increased degree of action of the heart, at the same time the pupils began to dilate, and the countenance evinced an anxious expression. My former experiments led me to watch with great care the progressive dilation of the pupil, and I deemed it expedient in each case when this symptom was well developed, to compress the tube so as to diminish the current, and allow the transfusion to proceed more gradually. Occasionally I almost completely interrupted the current until the subsidence of this symptom, and I found that when about three quarts had been transfused, any additional quantity was followed by unpleasant symptoms, which indicated the necessity of stopping the operation. On removing the tube and closing the vein, all symptoms of irritation gradually subsided, and the pulse, from being rapid and irritable, became slower, stronger and fuller, gradually approaching the healthy standard. In every instance I found action in the healthy animal sufficiently strong to propel the blood into the vein of the patient; but if it be found requisite, the circulation may be strengthened by giving the horse from which the blood is to be abstracted, a little brisk exercise immediately before the performance of the operation.

"In each of my four cases the reaction was steady and progressive. The natural warmth of the extremities was gradually restored, and in the course of ten or twelve hours the patients presented other equally unmistakable symptoms of amendment, such as returning appetite, more quiet and steady respiration, cheerfulness of countenance, willingness to move about, and in a short time they were pronounced cured."

FOR THE AMERICAN FARMERS' MAGAZINE.

THE WEATHER.

APPEARANCE OF BIRDS, FLOWERS, ETC., IN NICHOLS, TIOGA CO., N. Y., IN MARCH, 1858.

By R. Howell.

Place of Observation, 42 degrees North, on a Diluvial Formation, about 40 feet above the Susquehanna River, and 800 feet above tide, according to the survey of the New-York and Erie Railroad.

Mar.	7 A.M.	2 P.M.	9 P.M.			REMARKS.
1	30	40	22	N. W.	Fair.	Light snow before daylight, half an inch.
2	13	19	11	"	Cloudy.	Light snow before daylight, one-fourth inch.
3	0	23	13	S. E.	"	Snow squalls in P. M. and evening.
4	2	15	6	N. W.	"	Snow squalls.
5	3	8	4	"	"	Snow squalls at intervals all day
6	9	22	11	"	Fair.	
7	9	24	16	West.	"	
8	14	33	18	N. W.	"	
9	16	22	20	"	Cloudy.	Light snow squalls at intervals all day.
10	23	38	25	"	Fair.	Light snow squall in the morning.
11	38	46	31	"	Cloudy.	
12	24	43	35	"	Fair.	Light snow squall at 9 P. M., and aurora at 9 P. M.
13	26	40	32	South.	"	Small or light aurora at 9 P. M.
14	36	46	40	S. E.	Cloudy.	Light rain from 6½ to 9 A. M.
15	40	52	45	S. & N.	"	Light rain at intervals all day; first blue bird seen.
16	42	65	47	S. E.	"	Ice in some places moved down the river.
17	42	75	57	South	Fair.	First blackbird and butterfly, and red and black caterpillar seen.
18	50	53	39	"	"	First robin seen; ice all went down stream.
19	35	46	27	"	"	The bee bird first seen, and frogs first heard.
20	26	56	47	"	"	First flock of pigeons, and ground squirrel seen.
21	46	61	39	S. & W.	"	Light dash of rain before light and through the day.
22	34	43	30	N. & W.	"	
23	27	41	26	N. W.	"	Plowing commenced.
24	25	45	25	"	"	
25	31	50	38	"	Cloudy.	Light dash of rain in P. M. and evening.
26	31	42	28	"	Fair.	
27	28	48	34	"	Cloudy.	A few very large flakes of snow at 5 P. M.
28	35	43	31	"	"	Snow in the morning; lunar halo at 9 P. M.
29	29	48	30	"	Fair.	
30	27	52	31	"	Clear.	Meadow larks first seen.
31	30	59	31	"	Fair.	

Mechanical.

PATENT CLAIMS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

CULTIVATRRS. — Joseph Banks, of Dadeville, Ala.: I claim the construction, arrangement and combination of the body of the implement and its movable teeth, as described, whereby it is readily adapted to properly receive in turn the several scrapers employed for performing the various modes of cultivation specified.

MACHINES FOR HULLING AND CLEANING CLOVER SEED.—J. V. Blackwell, of Ovid, N. Y.: I claim the application of the gravitating curtain, H, at the point of the eduction of the blast, for the purpose of modifying and diffusing the same, and preventing the waste of seed, substantially in the manner shown and described.

I also claim the combination and arrangement of the overshot grating cylinder, C, and feed roller, D, with the blast generator, G, and blast-regulating curtain, H, the whole operating conjointly in the manner and for the purpose described.

HARVESTERS.—George E. Chenoweth, of Baltimore, Md.: I claim compensating for the wear of the worm or groove

in the driving cylinder, by making the parts of that cylinder adjustable, as described, thus giving increased certainty to the action of the cutters.

HORSE HAY RAKES.—Asahel Cowley, of Harpersfield, N. Y.: I claim the described combination of a separator with a wheel rake, the whole being constructed, arranged and operated in the manner and for the purpose as set forth.

COMPOSITIONS FOR TANNING LEATHER.—Clinton Daniels, of Elk Horn, Wis.: I claim the combination and use of cream of tartar and bicarbonate of soda with catechu in making a liquor, and using the same for tanning hides and skins, no claim whatever being made to the discovery and use of the catechu alone, for tanning purposes, by me.

SELF-LOOSENING HORSE AND CATTLE TIE.—John J. Eshleman, of Lancaster, Pa.: I claim the bolt, B, in two sections, connected by the sliding scarf joint, H, for the purpose of instantly loosening the horse, as set forth.

I also claim the devices of the bolt, B, spiral spring, F, and casing, A, all in combination, operating together, substantially in the manner and for the purposes set forth.

METHOD OF LIGHTING GAS BY ELECTRICITY.—Samuel Gardiner, Jr., of New-York City: I claim placing a coil of platinum wire, or its equivalent, in the relative position to the jet of gas, as described, for the purpose of lighting the jet by electricity, and for the re-igniting it when blown out under the circumstances and for the purposes set forth.

HORSE-POWER MACHINES.—Jas. Grant, of Rochester, N. Y.: I claim making iron horse-powers with an open center to the caps, A, and an adjustable or a fixed bridge-piece, a, and making a double length or reversible pinion, B, as and for the purpose specified.

STRAW CUTTERS.—W. W. Hollman, of Eddyville, Ky.: I claim the combination of the movable bottom, when constructed as set forth, with the cam shaft, C, cams, A and B, and connecting rod, D, for giving a projection of straw under the knife by raising tne lever, W, said projection being gaged and furnished by the upward and downward motion of the lever, in the manner and for the purpose set forth.

CHURNS.—J. A. Jordan, of Shelbyville, Tenn.: I claim the employment of the revolving wheel, D, and stationary wheel, C, constructed and operating in the churn as set forth, the bottom of the same being fitted to a stove casing in the manner and for the purposes specified.

WASHING MACHINE.—James McVicker, of Green Co., Pa.: I claim forming a receptacle within the wash-box for containing the clothes to be steamed preparatory to their being washed by means of the ribs or slats, m, attached to the wash-box, and the ribs or slats, r, attached to the lid, P, so that upon opening the lid of the wash-box, the receptacle also is opened for the introduction or removal of the clothes, substantially as described.

HYDRAULIC CEMENTS AND MORTARS.

THE wonderful powers of durance which some mortars possess is to be explained with ease; but before doing so, let us recollect that the mortar and cement found in Herculaneum and Pompeii, now nearly two thousand years old, is as hard and compact as the volcanic rock on which it is found; and there are many specimens of cements in the museums of Europe, that, after having been under water for centuries, are as good, if not better, than when put down. Recollecting also the vast importance of good hydraulic cements in the construction of lighthouses, breakwaters and piers, and all submarine works, perhaps more attention may be given to the subject than otherwise would by non-interested readers. These hydraulic cements are such as *set* under water, and are not decomposed by its action like ordinary mortars. They are made either from natural or artificial mixtures of carbonate of lime with silica, or silicate of alumina or magnesia. The mineral *dolomite*, when calcined at a moderate heat, exhibits the property of hydraulic lime; and half-burnt lime (containing still a quantity of carbonic acid,) will *set* under water. From a French engineer—M. Vicat—we learn that the hardening depends much on the amount of carbonic acid left in the lime; thus he informs us that a stone that had thirty per cent of carbonic acid left in it after burning, hardened in fifteen minutes, while another, in which there was twenty-six per cent, hardened in seven minutes, and one

containing twenty-three per cent, took nine days to become hard. Two varieties in Europe are known as Trass and Puzzolana; and there is an hydraulic mortar used in England known as "Roman cement," made by burning some nodules found in the tertiary formation.

Neither clay, (silicate of alumina,) nor lime alone, will set under water, but if an intimate mixture of clay and chalk be calcined at a moderate heat, and afterwards mixed with water, a hydrated silicate of alumina and lime is formed as a hard mass, and this is hydraulic cement. If the clay or limestone should contain a little alkali, it seems to aid the solidification. There is an excellent cement made near Paris from one part of clay and four of chalk, which are intimately mixed with water, afterwards allowed to settle, and the deposit thus obtained is molded into bricks, which are then dried and calcined at a gentle heat. This hydraulic lime, like the best from natural sources, is entirely dissolved by acids. All mortars, but especially hydraulic ones, are solidified quicker and better under the influences of pressure and high temperature.

When an hydraulic cement is required, it is advisable to collect specimens of the minerals of the district in which work is to be carried on, and send them to some chemist for analysis. This will, in many instances, save much time and money, for we have known cases where Roman cements, and other hydraulic cements, have been brought from a great distance to carry on a work, quite close to which there was plenty only wanting the trouble of burning.—*Scientific American.*

AGRICULTURAL COLLEGES.

The following, which we take from several of the western papers, will give an idea of what is in contemplation and in progress, in that growing quarter of the Union, for the promotion of agricultural instruction. Could a better use be made of a portion of the public lands than by encouraging such enterprises?

Michigan.—It seems that the example of Michigan in founding the first Agricultural College on our side of the Atlantic, is deemed worthy of emulation. We give below sundry extracts showing that several other States are earnestly engaged in establishing institutions of the kind. They seem to be regarded as a necessity of the age, destined to supply a great *desideratum* in the otherwise admirable educational systems of many of the States.

Our own Institution has succeeded educationally beyond the expectation of its most sanguine friends, in spite of the severest tests, and those inevitable obstacles incident to all new and important enterprises.

The next term commences on the first Wednesday of April, and we understand that applications are on file already, for four times as many vacancies as will exist, many of them from other States. The public confidence seems firmly established in its triumphant success.

In addition to the States mentioned below, we notice that Maryland has during the past winter actually organized an Agricultural College and established it upon the estate of Mr. Calvert, near Washington. It is the joint work of the State and individuals.

Iowa Agricultural College.—We last week gave a brief synopsis of the establishment of an Agricultural College in Maryland. In another column will be found a notice of the Bill establishing a similar institution, on a comprehensive plan in Wisconsin. We have now received a Bill reported to the House of Representatives of Iowa, designing to establish a similar institution in that young and vigorous State.

The Bill in question establishes a State Board of Agriculture and a State College, and affiliates them closely. At the same time it contemplates a paternal charge over the general agricultural interests of the State. It authorizes the purchase of a tract of Land, the erection of buildings, the election of Professors, under proper restrictions and limitations. The Bill, in its general features, resembles the Act of Organization of our own College. In this case, as in the case of Wisconsin, the founders and promoters of the College, look with great satisfaction and solicitude to our own pioneer institution in Michigan, and its educational success thus far. No legislation nor act of Michigan, has ever elevated the State so highly in the opinion of her sister States, as the bold sagacity manifested in the establishment of her Agricultural College. The probability, indeed the certainty, seems to be establish-

ed, that our own will be the harbinger of other institutions of the kind in nearly every State in the Union.—*Lansing Republican.*

WISCONSIN AGRICULTURAL COLLEGE.—A Committee of the Senate in Wisconsin have reported a Bill for the establishment of an Agricultural College in that State. It adopts the main features of the Act creating the Michigan Agricultural College, a rare compliment to our State.

It is proposed, however, to do what Michigan did not do, endow the Institution permanently at once, with a fund to be created from 20 per cent. of the proceeds of the Swamp Lands. The interest of the fund so created is to be forever appropriated to making Tuition *free* in the College.

Labor and study are to be indissolubly united in the Institution, and the student is to be educated physically as well as mentally.

As soon as $40,000 is subscribed and received by individuals, the same sum is to be supplied from the Treasury for the immediate purchase of a farm, erection of buildings, &c. We learn that the citizens of two or three localities tender in advance the subscriptions of $40,000, provided the institution can be located among them.—*Detroit Tribune.*

KENTUCKY FOR AGRICULTURAL COLLEGES.—The Board of Directors of the State Agricultural Society of Kentucky recently adopted the following Preamble and Resolutions:

Whereas, A bill has been introduced into the Congress of the United States, appropriating a portion of the National domain for the endowment of a school in each State of the Union, for the education of farmers and mechanics—therefore, as the sense of this Board,

Resolved, That the Kentucky Agricultural Society, and the Farmers and Mechanics of Kentucky, do most cordially approve of said measure so far as it is known to them without distinction of party as to national politics; and that our Senators and Representatives in Congress are requested to use all reasonable and honorable efforts to promote its passage.

OHIO AGRICULTURAL COLLEGE.—The Bill which Mr. Raymond has introduced, pursuant to the views of Gov. Chase as contained in his Annual Message, provides for the purchase of a thousand acres of land in one body, at no more than $25 an acre, and appropriates $50,000 for that purpose, and for the erection of buildings, purchase of furniture, apparatus and library. The College to be under the supervision of the State School Commissioner and State Board of Agriculture. The course of instruction to include a thorough English course, Mathematics, Natural Philosophy, Chemistry, Botany, Animal and Vegetable Anatomy and Physiology, Geology, Mineralogy, Meteorology, Entomology, Veterinary Art, Horticulture, Political Economy, Civil Engineering, Book-Keeping, and the Mechanic Arts directly connected with Agriculture. The sum paid to Professors the first year shall not be more than $5,000, the rent $6,000, and any year thereafter such sum as the Board of Supervision shall deem necessary. Tuition in the College shall be *forever free* to pupils residing in Ohio, and in case more pupils apply than can be accommodated, they shall be apportioned to each county, according to the ratio of its population.—*Toledo (O.) Blade.*

ENGLISH AGRICULTURAL IMPROVEMENTS.

THE New-York *Tribune* alludes to several improved machines and processes recently produced in England. One, by Alfred Newton, relates to the cultivation of land by spades, operated by locomotive power as the machine progresses in the field. It breaks up, disintegrates and turns over the sward more thoroughly than can be done by the plow. A series of spades is made to enter the land in succession, and cut it into the arc of a circle, when the cut slices are suddenly thrown up against a shield plate, at once reversing them and breaking them almost into powder. This machine is only a new form of steam plow, at which English mechanics are still trying with unabated activity. Mr. John Fowler has also invented an improvement in the mode of operating the ordinary steam plow, which greatly simplifies its movements, and enables it to travel through the furrow with more certainty and freedom. Mr. William Dray, of London, has patented an improvement in plows, which applies to such plows as are provided with a share in the form of a pointed bar, and con-

sists in the means of securing the bar in its position, after being pushed forward, as may be from time to time required by the wearing away of the point thereof. The patentee claims the construction of plows which are provided with movable share bars, in such a manner that the bars can be tightened or slackened by means of an eccentric roller or collar. Mr. Robert Reeves, of Wiltshire, has patented a cart body for the purpose of delivering manure over a field, without requiring it to be thrown out by hand. The bottom of the cart is supplied with longitudinal openings, in which revolves drags or blades attached to an axis under the body. As the cart moves, these drags pull down the manure in a condition of complete pulverization.

ACTIVITY AMONG INVENTORS.

During the week ending April 10th, says the *Scientific American*, there were filed in the Patent Office thirty-two applications for patents from this office alone, exclusive of a number filed by the branch office of Munn & Co., located in Washington. For the same week there were issued at the Patent Office twenty-four patents to parties whose cases were prepared at this office and conducted through the *Scientific American* Patent Agency.

The above statistics for a single week shows that the inventors throughout our land are not slumbering.

ARCHITECTURAL DECORATIONS.

The ordinary house decorations that usually have any connection with their architectural proportions are, if not of the same material as the front of the house itself, generally made of plaster or stucco. When the house is new, these answer very well, and after a short time look in keeping with the whole; but it does not take long for the weather to cause them to crack, then little bits break off, and finally the whole crumbles away. A new material has been introduced to supply the place of these friable plasters and stuccoes, which is easily molded and can be cast into any pattern; it is basalt. There are works in Birmingham, Eng., where architectural decorations are cast from it in hot molds. The products are very firm and beautiful, and are represented as possessing characteristics of great durability. When cast in cold molds, a glassy lava termed obsidian is produced. The material generally employed is the rag stone of the neighborhood, but furnaces are in operation for the reduction of quartz by direct fusion according to a peculiar process, in which the pulverized quartz is mixed with flour spar, lime, and oxyd of iron, which agents combine with the silica and render the whole perfectly fluid.

ANOTHER AMERICAN TELEGRAPH.

There is a project on foot at St. Petersburg for establishing a strictly overland telegraphic company with North America. The plan has been presented to the government by a Belgian engineer, and consists in carrying a telegraphic line by Siberia, and to establish a submarine communication between Capes East and Prince of Wales, then to join the line to those of the United States through the territories of Russia and England.—*Scientific American.*

☞ An alchemist, who knew that Leo the Tenth was a great encourager of the arts and sciences, addressed him on a discovery he had made of turning other metals into gold. The Pope read his address with great attention. Whilst the philosopher was gaping after his remuneration from his holiness, he received from the Pope a very large empty purse, with these words, "You can fill it."

☞ Eggs by Weight.—Many of our people are in favor of the sale of eggs by weight. We saw an experiment made this forenoon by one of our grocers, who had just received a fresh lot, that converted us. He first selected a dozen of the large sized and placed them in one scale; and then put *twenty-one* of the smaller sized in the opposite; to balance them. The customer chose the dozen paying the price that was asked for the twenty-one.—*Lowell News.*

☞ Six barks are now preparing at Chicago to make voyages to Liverpool. Last year one—and the first—made this voyage, and seemingly with success, or others would not be induced to follow the example this year.

Miscellaneous.

COAL ASHES FOR POTATOES.

☞ A successful gardener in Norwich, Ct., last year planted half an acre of potatoes, partly with bad seed, very much decayed, on land where potatoes had rotted for several years before. He put a large handful of anthracite coal ashes into each hill. The crop was large and perfectly sound. All around him potatoes rotted badly. These are the facts.

Our comment is, that the ashes saved the potatoes. But coal ashes are not unique in their composition, neither are the causes of the disease always precisely the same; and hence, although the above statements are undoubtedly accurate, yet we would not infer that coal ashes will always prevent the disease.

The experiment, however, is well worth repeating by all who have coal ashes on hand.—Ed.

CURE FOR DRUNKENNESS.

"The best cure for drunkenness that we can recommend is total abstinence from all intoxicating drinks. Where the unfortunate victim does not possess the necessary firmness to resist the temptation of the intoxicating draught, we would recommend those interested in his fate to first employ those delicate means which are dictated by the spirit of Christianity, to bring him to a proper sense of his condition, before resorting to the forcible ones too often attempted. Instead of trampling upon him, strive to nurse into life the still glimmering embers of a nearly exhausted virtue. Think of him as a being whose frame is still capable of being agitated by feelings the most refined, delicate and intellectual, and endeavor to inspire in him a desire for those virtuous joys which he experienced before he became a victim to this terrible habit."

So says a much-valued contemporary, and we believe every word of it. A kind and Christian spirit that, most truly. But virtue that will not withstand temptation, is no virtue; and the drunkard should be made to feel, not when he is drunk, but in his sober moments, that it is a *terrible sin*, and not merely a *sad misfortune*, to be a drunkard, against God, against himself, against his family, and against the whole world. —Ed.

THE ENGLISHMAN'S SNUFF-BOX.

The French papers have not, under the influence of the alliance, ceased to have their jokes upon Englishmen, and one of the drollest is told as follows, by the *Union Bretonne*, from which we translate it:

Lord C., well known for his eccentricities, went lately to the establishment of one of our most celebrated workers in fancy articles.

"I want you to make me," said he, "a snuff-box with a view of my chateau on the lid."

"It is very easily done," was the reply, "if my lord will furnish me with the design."

"I will; but I want also, at the entrance of my chateau, a niche in which there shall be a dog."

"That, too, shall be provided," answered the workman.

"But I want, also, that some means should be contrived by which, as soon as any one looks at the dog, he shall go back into the niche, and only reappear when he is no longer looked at."

The workman looked inquiringly, as if to ascertain whether his customer was not the victim of some mystification. Reassured by his examination, and like a clever man, understanding how to take advantage of the affair, he said to the Englishman:

"What you ask of me is very hard to comply with; such a snuff-box will be very expensive; it will cost you a thousand crowns."

"Very well; I will pay you a thousand crowns."

"Then, my lord, it shall be made according to your wishes, and in a month I shall have the honor of delivering it to you."

A month later the workman presented himself to lord C.

"My lord," said he, "here is your snuff-box."

Lord C. took it, examined it, and said, "That is my chateau with its turrets, and there is the niche by the door-way. But I see no dog."

"Did not your lordship," said the workman, "say that you wished the dog to disappear when he was looked at?"

"I did," replied his lordship.

"And that he should re-appear when he was no longer looked at?"

"That is true, also," was the reply.

"Well," said the workman, "you are looking at it, and the dog has gone into the niche. Put the box in your pocket, and the dog will re-appear immediately."

Lord C. reflected a moment, and then exclaimed, "All right, all right." He put the box in his pocket, and took out of his pocket-book three bank bills of a thousand francs each, and handed them to the skillful workman.

HORSE RACING.

We are convinced that the whole system of racing for heavy bets is quite unnecessary to keep up high breeding in horses among an enterprising and industrious people like our own, while it is even rather prejudicial to the keeping up of hardihood and bottom, and ten times more injurious, morally, to all immediately engaged in it.

We say nothing of cruelty to the horses engaged, and danger to the men, as the race-course, last year and this, both exhibited. This, however, causes horse racing to differ much from boat racing. But we speak particularly of the gross and wholesale systems of betting vast sums, common on such occasions, leading to frauds and defalcations to an immense amount.

It may indeed be said, that for the proprietor of a horse to have a large interest at stake on his success, makes it worth his while to produce the highest possible speed. But what can be said in regard to the mere spectators betting amongst each other? Each one, if he wins, obtains money without having performed any corresponding benefit to society. Such money, because it comes easily, goes easily; and habits of waste and profligacy are introduced; and men are educated to seek for money, and find it most readily, not by industry and economy, which are the true foundations of national prosperity, but by low cunning, idling and chance. Their money is usually lost much in the same way in which it is made.

Those who lose have to pay over money first earned by some one honestly and industriously, money that those who squander had no right thus to appropriate. How many a family, brought up in affluence and with large expectations, has been reduced to beggary by these reasons, let each English race-course declare. Indeed, the best families everywhere, having a mind to maintain their position and wealth, are learning increasingly to avoid the dangers of the race-course and its betting.—*Philadelphia Ledger.*

MICE.

A good trap? That soon ceases to be of much effect. Cats? There are a nuisance in themselves, unless where trained as pets. Poison? That is dangerous.

Listen a minute, and I will tell you a plan of a very simple nature, which experience teaches me is efficient. On entering the house the writer now occupies—a rather old one, as it was built in the reign of James II—the floors and shelves exhibited the usual proofs to eye and nose that they were a haunt of large numbers of mice. It seemed hopeless to trust to the ordinary remedies. Thinking over what else might be done, I bethought me that, if it could be made not worth their while to remain, the mice would be sensible enough to desert the house for better quarters. It was resolved, therefore, to act upon the principal, that prevention is better than cure. The reader must excuse a somewhat minute detail on a domestic subject of no small importance.

We chanced to have a thoroughly clean and rather reasonable cook at the time, who though fond enough of her own way in most other things, did me the favor to let me have mine in this affair, and to carry out my plan with the greatest strictness and fidelity. On that very evening, after the last meal at night, every crumb of bread was carefully swept from the table, dresser, and kitchen floor, and the sink was carefully sluiced and clensed from all culinary debris. The sweepings were thrown, not into the dirt heap, but into the kitchen fire, so as to secure their perfect destruction. This was done regularly every night; and of course the mice soon found out that there was nothing for them to eat, excepting a trifling morsel of cheese in a common trap, by which a few were caught. In about a fortnight, one weakly mouse was

caught by the hand; but from that time to the present—about a year and a half—not a trace of a mouse has been visible, though they have been heard running behind the wainscotting in some parts of the house. No trouble has been taken to stop up the mouseholes, which remain as at first; not a single cat has been known to enter the house, and no dog has been kept. It is evident that what is carelessly left on the floor, &c., of mealrooms, constitutes the chief support of mice; and if the trouble were taken to deprive them of this, they would soon be so far reduced in numbers as to be rarely seen or heard. Every occupant of a house, might, at all events, in this way compel the mice to migrate to his less cleanly and less pains-taking neighbors; and if the custom of removing every particle of food every evening, were established in all houses, as it might very easily be, the propagation of these troublesome little animals would nearly cease in large towns; at all events those which did exist would confine themselves to their proper habitats, the drains and sewers. An unlooked for additional benefit, moreover, of a similar kind, was the result of this practice, which may possibly be mentioned on another occasion.—*Chambers' Journal.*

THE WAY TO COMMENCE.

The following is the testimony of a distinguished and very wealthy merchant of this city, of how to commence making a fortune and how to push along:

"I entered a store and asked if a clerk was not wanted. 'No,' in a rough tone was the reply—all being too busy to bother with me—when I reflected if they did not want a clerk they might a laborer, but as I was dressed too fine for that, I went to my lodgings, put on a rough garb, and the next day went into the same store, and demanded if they did not want a porter, and again 'no,' was the response; when I exclaimed in despair almost, 'not a laborer? Sir, I will work at any wages—wages is not my object—I must have employment, and I want to be useful in business.' These last remarks attracted their attention, and, in the end, I was employed as a laborer, in the basement and sub-cellar, at a very low pay, scarcely enough to keep body and soul together. In the basement and sub-cellar I soon attracted the attention of the counting room; and of the high clerk. I saved enough for my employers in little things wasted, to pay my wages ten times over, and they soon found it out. I did not let anybody commit petty larcenies without remonstrances and threats of exposure, and real exposure if remonstrances would not do. I did not ask for any ten hour law. If I was wanted at 3 A. M., I was there, and cheerfully there; or if I was kept till 3 A. M., I never growled, but told everybody, 'go home and I will see everything right.' I loaded off at daybreak, packages for the morning boats, or carried them myself. In short I soon became indispensable to my employers, and I rose and rose—and rose till I became head of the house, with money enough, as you see, to give me any luxury, or any position a mercantile man may desire for himself or children in this great city."

TOMATOES FOR WINTER USE.

Dear Farmer:—We are now enjoying the luxury of table tomatoes, as fresh as when first prepared, and at very little expense. We prepared one bushel of ripe fruit by removing the skins and cooking, seasoning only with salt and a very little sugar. They were cooked till thoroughly done—rather thicker than for immediate use, having been stirred with care to prevent scorching, and poured, boiling, into common stone jugs, and sealed while hot. We used grafting wax. One jug was not quite full, and we feared it might not keep well, but on opening it a few days since, we found it covered with a white coating, resembling mother in vinegar, but entirely sweet, as were also the tomatoes.

The first gallon was opened the day before Christmas, and remained, only corked, in a cool dry cellar, keeping good till the first of February.

When wanted for the table, add butter, pepper, etc.; and scald. We were careful to use only sound fruit, scalding it just enough to separate the skin, (which is best done by keeping the water boiling and dropping in four or five at once and skimming out immediately) which may influence their keeping.

I send you this now that all lovers of this fruit may prepare for the coming winter by planting abundantly. I assure you that we shall not make one gallon last us more than a month another

winter, if we can get the tomatoes to make up.

Spiced Tomatoes are also nice. Prepare as above, and throw into boiling vinegar and sugar (at the rate of four pounds of sugar to one gallon of vinegar) without cutting, cooking till reduced to the desired consistency, and kept in jars, or better in large mouthed jugs (as they will not cook to pieces) and sealed. Season to the taste by enclosing ground spices in a cloth and boiling with the fruit.

We have them as good as if used at first, saved for pickles, green or nearly so, (not having tried ripe ones,) by putting them up late, in water with only salt enough to season them, say three pints to the barrel; if much salt is used the seeds harden and they are not good. When required for use you have only to prepare them as in the fall when they come from the salt water. Do not fail to put out plants.

MRS. E. P. F. BRADNER,
in Mich. Far.

REDFORD, March, 1858.

A MICROSCOPIC WONDER.

THE mold on decayed fruit, stale bread, moist wood, etc., is shown by the microscope to be plants, bearing leaves, flowers, and seeds, and increasing with incredible rapidity, for in a few hours the seeds spring up, arrive at maturity, and bring forth seeds themselves, so that many generations are perfected in a day.—*Scientific American.*

☞ WE know a man so mean that he won't draw his breath for fear that he will loose the interest.

☞ MRS. TWADDLE says one of her children don't know nothing and the other one does. The question now is, which boy is ahead. Answers may be forwarded till the mail closes.

☞ ONE of the Western editors, speaking of a large and fat cotemporary, remarked that if all flesh was grass, he must be a load of hay. "I suspect I am," said the fat man, "from the way the asses are nibbling at me!"

☞ IF a man empty his purse into his head nobody can take it from him. An investment in knowledge always pays the best interest.

SMALL THINGS.

A TRAVELER through a dusty road,
Strewed acorns on the lea,
And one took root and sprouted up,
And grew into a tree.
Love sought its shade at evening time,
To breathe its early vows;
And age was pleased, in heats of noon,
To bask beneath its boughs.
The dormouse loved its dangling twig,
The birds sweet music bore;
It stood a glory in its place,
A blessing evermore.

A little spring had lost its way
Amid the grass and fern,
A passing stranger scooped a well,
Where weary men might turn;
He walled it in, and hung with care
A ladle at the brink—
He thought not of the deed he did,
But judged that toil might drink.
He passed again—and lo! the well,
By summers never dried,
Had cooled ten thousand parching tongues,
And saved a life beside!

A dreamer dropped a random thought,
'Twas old, and yet 'twas new—
A simple fancy of the brain,
But strong, in being true;
It shone upon a genial mind,
And, lo! its light became
A lamp of life, a beacon ray,
A monitory flame.
The thought was small—its issues great,
A watch-fire on a hill;
It sheds its radiance far adown,
And cheers the valley still.

A nameless man, amid a crowd
That thronged the daily mart,
Let fall a word of hope and love,
Unstudied from the heart;
A whisper on the tumult thrown—
A transitory breath—
It raised a brother from the dust,
It saved a soul from death.
O germ! O fount! O word of love;
O thought at random cast!
Ye were but little at the first,
But mighty at the last.

☞ THE housewife who has fruit in her cellar and neglects to place it on her table, neglects the health of her family, and undervalues one of the richest ornaments for table garniture in her possession.

☞ A FARMER said to a barber that he ought to reduce his prices now that corn is cheap. "No, siree," replied the shaver, "for when corn is low, farmers make such long faces that I have twice the ground to go over."

A BIG STORY, BUT TRUE.

JASON CLAPP, a carriage maker, a farmer and a gentleman in the eyes of all who know him, in Pittsfield, Berkshire Co., Mass., weighed four tons of well made hay, of the very best quality, every ton worth a ton and a quarter of medium hay, from one acre of reclaimed swamp, heavily dressed with horse manure; and he has grown crops approaching this in value, every year for nearly a quarter of a century, on that acre.

We do not think much of big stories but know this to be true; and it is only one of many that go to show that our filthy swamp holes may be reclaimed, with much advantage to the health of the people living near them, and with paying results.

A YOUNG lady in one of the leading circles at Washington was complimented by a gentleman on the simplicity and good taste of her dress at an evening party. She replied, "I am glad you like my dress; it cost just seven dollars, and I made every stitch myself." When young ladies pride themselves upon the cheapness of their attire, instead of expensiveness, we shall have fewer "broken" fathers and husbands.—*Colorado Citizen.*

That is the right sort of a young lady. Where are the young men? There is a chance.—ED.

☞ CHARLES LAMB is reported to have said: "The water cure is neither old or wonderful; for its only as old as the deluge, which, in my opinion, killed more than it cured."

Rather severe. The water treatment kills more than it cures only when not administered with care and great good judgment.

☞ SENATOR HAMMOND, of South Carolina, has, it is said, one of the largest landed estates in the South, his farm comprising over 11,000 acres.

☞ A MERCHANT lately advertised for a clerk "who could bear confinement." He received an answer from one who had been seven years in jail.

LEARNING AND UNLEARNING.—At five years of age the father begins to rub the mother out of his child; at ten the schoolmaster rubs out the father; at twenty a trade or profession rubs out the schoolmaster; at twenty-five the world rubs out all its predecessors and gives a new education till we are old enough and wise enough to take reason and religion for our pastors, when we employ the rest of our lives unlearning what we have previously learned.

AN old lady combated the idea of the moon being inhabited by remarking, with emphasis, that the idea was incredible, "For," said she, "what becomes of the people in the moon when there is nothing left of it but a little streak?"

ARAB PROVERBS.—If your friend is made of honey do not eat him all up. If you travel through the country of the blind, be blind yourself. When you are the anvil have patience; when you are the hammer, strike straight and well. He who can not take a hint, can not comprehend a long explanation. Take counsel of one greater and one less than yourself, and afterward form your own opinion.

☞ A STRICTLY orthodox old gentleman in Massachusetts, returned home on Sunday afternoon from church, and and began to extol to his son the merits of the sermon.

"I have heard, Frank," said he, "one of the most delightful sermons ever delivered before a Christian society. It carried me to the gates of heaven."

"Well, I think:" said Frank, "you had better dodged in, for you will never get another such a chance."

☞ A PRETTY woman pleases the eye; a good woman pleases the heart. The one is a jewel, the other a treasure.

☞ CURE FOR POLYGAMY. — Punch says that President Buchanan need not throw away powder and shot upon the Mormons. Let him send them fashion books. The necessity of crinoline will destroy polygamy. It will render Brigham Young himself unable to support more wives than one.

Children's Corner.

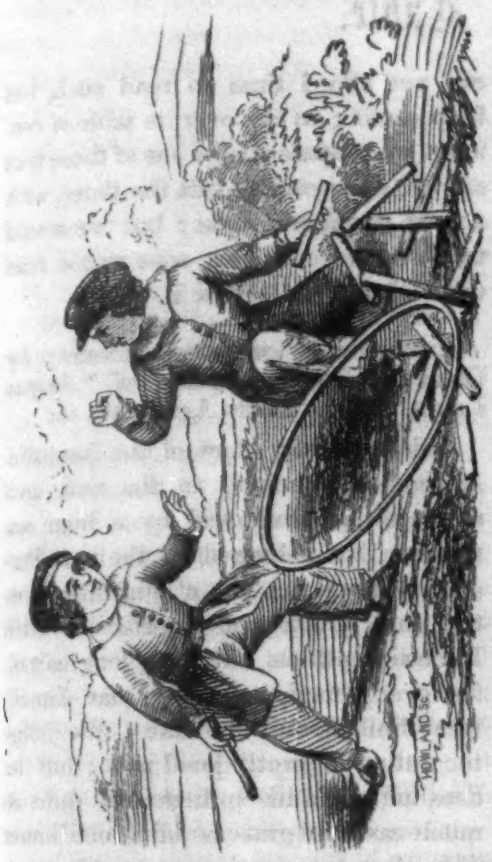
Above is represented a position into which we would advise children to put themselves as often as they have opportunity—out of doors, with some one who has learned more than they yet have, though not as much perhaps as they will, but who is now in advance of them and can teach them something they did not know before.

May is a fine month to be out in the open air, to absorb the genial influences of the sun without being scorched by his too fiery beams, and to observe the operations of nature. Nature is an ever present teacher; but children will comprehend her lessons more readily if they have some one to direct their observations. The girls even should be out this month, and their mothers should sometimes go abroad with them. But look below. What a fine employment for boys. If the girls work a little in the garden it would do them good. If their mamas fear it would make their hands too large and coarse, we think that an idle fear. But never disobey your mother, even if she should forbid you to handle a light hoe and spade, or a trowel, to dig about the flowers. But here are some boys and they are well employed.

It would be well if every boy in the country knew the use of farm and garden tools. If they should go to college by-and-by and learn to be great men, would it do them any harm to know first a good deal about farming and gardening? Not a bit. If they were to be Clays, Calhouns and Websters, it would do them no harm, but, on the contrary, much good to be so trained, as to know how work should be done and to be able to do it.

Nothing so contributes to the great end of education—*a sound body and a sound mind*, as farm and garden work in early life, to be continued at intervals, till the mind is severed from the body

and soars above all weights and hindrances.



Next after work in the open air, those thousand and one plays which boys love to engage in are best adapted to expand the chest and develop the muscles. Boys love to be useful, to aid their parents, to do something which benefits some one besides themselves, and for which they feel that they deserve approbation. That is right. There is not a purer, nobler pleasure than that of doing good, of feeling that we are of some consequence, are benefitting somebody.

But then there are times when boys, and men too, must have their relaxations. Especially should boys have them; and all kind parents love to see their children enjoying themselves in some innocent sport. Well they may; for in one-half hour's play, such as is going on above, the lungs are filled a thousand times; the blood is purified by the inhaled oxygen and the exhaled carbon better than by all the quack medicines recommended for that purpose; every muscle is brought into exercise. In short, those boys are nature's pupils just now. They are practising the lessons she distates. They will be men sooner, and probably better men for what they are now doing.

The children, listening to instruction above, are doing well, and the man there looks as if he wanted to give them a good thought. The boys with spade and rake in hand are doing well. We advise all boys to use such implements. But the other boys in the last cut are doing quite as well as any, provided they have done their more important duties first, and are now playing innocently and honestly (fair in their counts) with each other.

AN ARKANSAS FATHER'S ADVICE TO HIS SON.—"Bob, you are about leaving home for strange parts. You are going to throw me out of the game and go it alone. The odds are against you; but remember always that industry and perseverance are the winning cards. Book larnin' and all that sort of thing will do well to fill up with, like small trumps, but you must have the bowers to back 'em, or they ain't worth shucks. If luck runs agin you pretty strong, don't cave in, and look like a sick chicken on a rainy day, but hold your head up and make believe that you are flush of trumps. They won't play so hard agin you. I've lived and traveled around some, Bob, and I've found that as soon as folks thought you held a weak hand, they'd all buck agin you strong. So when you are sorter weak, keep on a bold front, but play cautious. * * * And above all, Bob, be honest; never take a man's trick wot don't belong to you, nor clip cards, nor nig, for then you can't look your man in the face, and when that's the case there's no fun in the game; it's regular 'cut throat.'

"So now, Bob, farewell: remember wot I tell you, and you'll be sure to win, and if you don't, sarves you right to get 'skunked.'"

☞ A YOUNG thief charged with picking pockets, protested that he didn't pick 'em at all, but took them just as they came.

Editor's Table.

LIFE OF GEORGE STEPHENSON, Railway Engineer, by Samuel Smiles, from the Fourth London Edition. Boston: Ticknor & Fields. 1858. 486 pp., 12mo.

This is a beautifully executed book, with a beautiful portrait of its subject. Its chief excellence consists in two things. First, it affords an admirable history of railroad building and management in England, made interesting from beginning to end by the living, acting presence of the hero of the narrative. In the second place it presents a remarkable instance of what a young man, without early instruction, with no powerful friends to lift him, in a country where it is more difficult to emerge from a low to a high position than in ours, can do for himself by the unaided energies of his own mind and will. We wish every young man in our country would read it, review it, ponder upon it, and consider what sort of a man it is possible he may become, if true to himself. Why, young man, it would do you more good to read this one book, than to read columns of love stories, got up by the penny-a-liners, long enough to reach round the globe.

RAN AWAY TO SEA, an Autobiography for Boys, by Captain Mayne Reid, author of "The Desert Home," "Boy Hunters," etc., etc. Ticknor & Fields, Boston. pp. 359.

This runaway boy had a prodigious hard time, and would have given everything to get back again, and so we advise boys, who have a good home, not to run away; but after almost intolerable sufferings, he became a pretty decent man; and so we advise parents, who have a boy that is fool enough to run away to sea, not to be entirely disconsolate, as he *may* see his folly, and behave better. The book is interesting. So says our clerk, who has read it. We can not afford time to read such, but from casting an eye over its table of contents, we suppose it to be one of those true stories, concocted to suit the times, with a good moral *of course;* but we would much rather our own sons would read the book noticed before it.

ANDROMEDA, AND OTHER POEMS; by Charles Kingsley, author of "Amyas Leigh," "Two Years Ago," etc., etc.

This is the old story of the beautiful Andromeda, chained to the rock, and about to be swallowed by a huge sea monster, but delivered by the hero Perseus, done up in a sort of long lined poetry, and pretty well interlarded with Homeric epithets, such as long-haired, fair-eyed, Aegis-wielding, far-famed, ivory limbed, and the like. We judge the author a pretty good poet; but he does not wield his epithets with quite as much ease and grace as blind old Homer did. Our language is not as well adapted to poetry as the Greek. The world, we think, has never seen a poet equal to Homer, and we reckon it never will. Mr. Kingsley's book contains 111 pages, and would be a tolerable desert after a light dinner, or better, after a cup of Oolong at sun-set, for one who wished to revive a nearly forgotten acquaintance with Grecian Mythology.

TRANSACTIONS OF THE NEW-YORK STATE AGRICULTURAL SOCIETY FOR 1856.

We are indebted for this valuable document to B. P. Johnson, Esq., Secretary of the Society, and an indefatigable worker in its cause. It is smaller than some of its predecessors, more select, and is a truly valuable work.

AGRICULTURE OF MASSACHUSETTS, by C. L. Flint, Esq., Secretary of the Massachusetts Board of Agriculture.

This work also is smaller than its pre-

decessors, more select, and therefore better. It is all that could be expected of the gentleman above named, and that is as much as to say it is good. We believe no State has yet beat the old Bay State in the value of agricultural documents for the people.

REPORT OF THE UNITED STATES COAST SURVEY. Prof. A. D. Bache, Superintendent.

In a national point of view, one can not doubt that these accurate, scientific, recorded surveys are of very great importance and value. For the present volume, a large quarto, with abundant engravings, our thanks are due to Superintendent Bache. It is published in better style than is usual at our national capital; and we can not but hope that, at Washington where so much is paid for printing, the art of printing will ere long be learned.

TRANSACTIONS OF THE MICHIGAN STATE AGRICULTURAL SOCIETY.

We are indebted to J. C. Holmes, Secretary, for this volume.

It contains a large amount of valuable matter, and is executed in a style highly creditable to that young State.

A single remark with regard to these annuals. Are they not still too large? The State treasury, we believe, usually pays for the printing, and that is well. Nobody should complain of a tax that serves to develop agricultural resources, because it puts into the treasury ten times more than it takes out. But it is never good economy to publish what is not worth publishing. There is no good in making an ass of the State or national treasury, to carry needlessly heavy loads. We have thought that an annual volume of three or four hundred pages, prepared by men who have the talent for condensation, might benefit the people as much as one of six or eight hundred pages, less pruned and condensed, and we throw out these remarks for those especially concerned in compiling them. If much is gained by letting in some writers, as much may be saved, in paper and ink, by shutting out others.

If it should be said that our suggestions would shut out the farmers, the very men who have the richest experience to tell, we deny it. Farmers are more apt to be strong handed, than long winded. They are generally reluctant to write, but when they can be persuaded to undertake it, come to the point quickly. According to our *notion*, they would be more likely to find a place than any other.

IT is with no ordinary emotions that we give place to the following too brief tribute to the worth of an old acquaintance, a good man and an intelligent friend of agriculture and of humanity;—

ESSEX CO., MASS., March 20, 1859.

FRIEND NASH:—We have lately lost by death one of our most reliable farmers in Massachusetts. Col. Moses Newell died at his residence in West Newbury at the age of 63 years. He and his sisters inherited from their father about 300 acres of the best land in the county of Essex, situated on the southerly bank of the river Merrimack. For nearly 40 years he was a member of the Board of Trustees of the Essex Society, and for four years President of the Society. Always ready with heart and hand to do all in his power to aid the farmer, his loss will be severely felt by them—his physical health giving assurance of ten years more of life and usefulness. When a man so worthy is suddenly called away, it is proper that his virtues should be noticed, that others may imitate his example. Truly yours,

J. W. PROCTOR.

Convention of Agricultural Editors.—Such a convention we see is proposed, and we go in for it. The place is not yet agreed upon, but we notice a very general expression of willingness to accommodate in this matter, and we conclude, therefore, it will find a location. July or August, of the coming summer,

is the time proposed. Great good can not fail to result from a comparison of views and a free discussion of the more important subjects pertaining to this greatest of all material interests.

Tall Herds Grass.—We have before us a clump of herds grass, grown on the farm of A. N. Smith, Lenox, Berkshire Co., Mass., almost too tall to describe, lest we should get the name of telling *tall* stories. We knew long ago that these Berkshire mountaineers grew the tallest men, but were not aware till now that they grew the tallest herds grass. But it is so. The stalks are as tall as a man six feet high, and the heads are 11½, 11, 10, 9, 8 and 7 inches in length. Who will send us taller herds grass with longer heads?

Lawton Blackberry.—In referring to the advertisement of Mr. Lawton, it is proper to mention that plants put out on or before the 16th of May will give a fine crop of fruit next year, whereas if planting is delayed till autumn, a season is lost. Much has been said of the superior qualities of this fruit, and we most heartily endorse it all. It is an enormous bearer, and the fruit is large and sweet. Any soil which will produce corn is suitable for this plant. A rich loam, rather heavy, suits it best.

HULLED CORN.

The way to make this excellent article of food is this: Boil a quart of sound ripe corn in very strong lye, until the outer kernel of the grain is removed, which will be in about eight minutes. Now wash it in two waters, and cook until tender, and you have four quarts of most excellent and nutricious food.

REMARKS ON THE TIMES.

Congress has now been in session five months. The opponents of the dominent party say it has yet done nothing. Its friends undoubtedly think it has done well. It seems to us that neither are right. An indiscriminate censure of an administration by its opponents, and a predetermined approbation of all its doings by its friends, are alike unfavorable to the best interests of the country.

A patriotism that rises above party, a candor to give opponents *deserved* credit, a fidelity to scan the action of friends, and do even balanced justice to all, is what the country wants, what it lacks now more, we fear, than in the days of our fathers. We will not speak of measures or men, for the reason that this journal is not for such a purpose, and it shall not be perverted to other than its legitimate object, so long as we control its pages.

It is well known to our readers, that we believe it quite possible for our government, within the legitimate scope of its powers, with no frightfully high tariff, without much increasing the price of a single article of consumption, with no legislation purposely partial, and none that would in its effect operate injuriously to any, to secure a state of things in which American wants would be supplied by American hands, and that such a state of things would be favorable to all the great interests of the country, and not less so to the farmer than to the mechanic.

But between selfish, log-rolling schemes to gain undue protection on the one hand, and too much fear, as we must think, of interfering with the laws of trade on the other, the great industrial interests of the country have never yet obtained a judicious, persistent, reliable protection and support at the hands of the government. A consequence has been overtrading, too much buying and too little producing, dependence on foreign nations and terrible revulsions, such as the one we are not yet out of.

In the great religious revival we certainly rejoice. Will it be followed by an increase of honor, truth, fair dealing, sobriety, moderation of desires for self-aggrandisement, patriotism, virtue, cherished in the heart and acted out in the

life. We hope it will; and we believe it will; and that religion will hereafter be estimated more by what a man does, and less by the particular dogmas in which he believes. Believe as I do, and it is not much matter what you do, has been too much the rule. We hope it may be less so hereafter. It would seem as if what has transpired the last few months could not fail to result in great improvements, religious, moral and social.

But we shall see. The next few years, perhaps the next few months, will decide on the value or worthlessness of great religious excitements, as that question was never decided before. A man must live well in order to be a good Christian, as well as pray well—must be straight manwards as well as Godwards. If there shall be as much necessity in this great city to watch men of high professions, lest they cheat you in trade; if there shall be as much mad haste to be rich, heaven willing or unwilling; if as resolute efforts to live by wit and not by work shall continue the order of the day; if there shall be as much trading wildly, on the principle that if the bold operator wins the gain is his, if he loses another bears the loss; if there shall not appear more decided integrity, and if rascality, successful or unsuccessful, does not meet a darker frown in the public mind, and if not put down, at least be put out of the church, then the revival will have done little good here, and we suppose it will be much the same in other cities and throughout the country.

Never was a greater fallacy than to suppose that religion will better a man's condition hereafter otherwise than in proportion as it makes him a better man here.

GENERAL AGRICULTURAL INTELLIGENCE.

New-York, April 22, 1858.

MOSTLY FROM THE N. Y. TIMES.

The Wholesale Produce Markets have fluctuated considerably during the week, especially for Breadstuffs, which varied in price, as the available supplies fell short of or exceeded the requirements of buyers. On Tuesday, the European market news received by the Arago, favorably affected Flour and Corn, which were freely sought after at improved prices. Yesterday the advanced rates claimed checked the inquiry for export, and though a fair demand prevailed for home use, the tendency of prices was in favor of buyers. Rye and Barley ruled heavy. Oats opened briskly and buoyantly, but they closed tamely and languidly.

Cotton has been in good demand and prices close with more firmness. The week's sales add up 11,200 bales. Our available supply is 62,710 bales, against 81,532 bales, same period last year. The receipts at all the shipping ports, to latest dates this season, have been 2,597,251 bales, against 2,706,414 bales to the corresponding period of last season. The total export from the United States so far this season have been 1,714,913 bales, against 1,764,912 bales to the same date last season. The total stock on hand and shipboard in all the shipping ports, at the latest dates, was 605,744 bales, against 473,975 bales at the same time last year. The stock in the interior towns at the latest dates was 98,139 bales, against 50,180 bales at the corresponding date a year ago.

Bale Hay has arrived freely, and been in good request at buoyant rates. Loose Hay has attracted less attention, and has favored buyers. Salt Hay was scarce and quiet. We quote: Bale Hay, ordinary to prime, at 50c. to 75c.; Loose Hay, poor to very choice, at 60c. to $1, and Salt Hay at 40c. to 65c. per 100 lbs. Straw has been more sought after, and prices have been maintained.

Rice has been moderately dealt in at unchanged prices. In Charleston, last week, the movements in Rice were as follows: Receipts 3,081 tcs. clean, and 20,000 bushels rough; the sales include all the receipts of clean, at from $3 to $3 50 per 100 lbs., and 12,000 bushels rough, at 82c. to 93c. per bushel; exports 3,989 tcs., including 2,998 tcs. to New-York, and 88 tcs. to Boston. Remaining on shipboard, not cleared, April 16, 3,904 tcs. Freights—to New-York, 75c. to 87½c. per tierce.

The transactions in Tobacco have been restricted by the small supplies available.

Prices have been well sustained. In Baltimore, during the week, Maryland was quiet. 350 hhds. Ohio changed hands, at $6 to $10. Kentucky was inactive. 1,051 hhds. of all kinds were inspected. In Louisville, Ky., during the week ending April 14, 936 hhds. were sold at somewhat firmer prices. In Cincinnati, a lively inquiry prevailed for Leaf and Manufactured during the week ending April 14, at steady rates. In New-Orleans, during the week ending April 10, sales were made of 2,400 hhds., new crop, closing with Planter's lugs at 7¾c. to 7¼c.; inferior to common leaf, 7¼c. to 8c.; fair, 8¼c. to 9¼c.; fine, 10c. to 10¼c.; choice selections, 11c. to 12c. Week's receipts, 3,554 hhds.; exports, 661 hhds.

Wool has been in rather better request at essentially unchanged prices. Sales have been reported of 125,000 lbs. domestic at 28c. to 40c. for common to full blood fleece, and 24c. to 32c. for superfine and extra pulled; with 13,000 lbs. unwashed California at private bargains; 1,600 lbs. California at 18c. to 23c.; and 330 bales foreign, including some Cordova at 17c. per lb., the latter on six months' credit. In Providence, last week, sales were made of 19,000 lbs. fleece at 30c. to 45c., and 11,500 lbs. pulled at 25c. to 36c. per lb.

Provisions have been quite freely purchased, (including Pork, for future delivery,) at improved prices for the leading articles.

No very important movement can be noticed in other descriptions of Produce.

NEW-YORK LIVE STOCK MARKET.

Beeves are sold by the estimated dead weight of the four quarters; the so-called "fifth quarter" (hide and tallow) is not reckoned in here as it is in Boston and some other cities. When cattle are weighed or estimated alive, the dead weight is reckoned at a certain number of pounds to the 100 lbs. of live weight, as agreed upon. The general rule in this market for medium cattle is 56 lbs. to the 100; 44 lbs. being allowed for the "fifth quarter" and offal.

The *average* prices to-day, as compared with last week, are about ¼c. lower.

We quote:

PRICES OF BEEF AT FORTY-FOURTH STREET.

	To-day.	Last week.
Premium Cattle.....	10¾c.@11c.	none.
First quality.....	10c. @10¾c.	10¾c.@11c.
Medium quality.....	9¼c.@ 9¾c.	9¾c.@10c.
Poor quality.....	8¼c.@ 8¾c.	8¾c.@ 9c.
Poorest quality.....	8c. @ 8¼c.	8c. @ 8¼c.
Gen'l selling prices..	8¾c.@10c.	9c. @10¾c.
Average of all sales.	— @ 9c.	9c. @ 9¾c.

At Browning's, Chamberlin's and O'Brien's prices do not materially differ from those at Forty-fourth street. Browning reports beeves at 8c. to 10c. Chamberlin reports beeves at 9c. to 10¼c. O'Brien reports beeves at 7½c. to 9½c.

MILCH COWS WITH CALVES.

The prices vary somewhat with the supply and demand, and vary greatly, of course, upon the milking value. The particular fancy of the buyer has also considerable to do with the price. Not unfrequently a Cow is sold at $90 to $100, or even $120. The general price throughout the year for ordinary Cows is $30 to $40, or $50. Quite a number sell above $50, and more, perhaps, below $30.

VEAL CALVES.

Veal Calves are sold by live weight, each animal being weighed alive at the time of sale. "Bobs"—that is, Calves a few days old—are usually sold by the head at such prices as can be agreed upon, sometimes for but little more than the skin is worth. The principal places of sale are Allerton's, Browning's, Chamberlin's and O'Brien's.

The markets have been more largely supplied than last week even, and sales are slow to-day, at 5c. to 5½c. for very fair Calves, while "bobs" sell for just what the purchaser offers for them, or all the way from 75c. to $2 each. Some of the stock of to-day has been on hand nearly a week, and the prospect is that all will not be sold at the present market.

SHEEP.

The receipts continue light, but prices remain about as last week, or a trifle lower.

SWINE.

The receipts continue very fair, and the trade, shows an improvement over last week at a trifling advance in prices. We notice sales of the best lots at 5½c.

WHOLESALE PRODUCE MARKET.

WEDNESDAY EVENING,
April 21, 1858.

THE prices given in our report from week to week are the average wholesale prices obtained by producers, and not those at which produce is sold from the

market. The variations in prices refer chiefly to the qualities of the articles.

Early vegetables are now coming in quite freely from the South, Bermuda, and New-Jersey. These diminish the inquiry after the old. Potatoes and tomatoes are arriving from Bermuda. Green peas, rhubarb, radishes, lettuce, and strawberries, from Charleston, with plenty of "greens," asparagus, leeks, shallots, &c., from the surrounding country.

Potatoes are essentially unchanged in price, except Nova Scotias, which have fallen under free arrivals. They are now put out at 60c. to 80c per barrel. The West is sending in large quantities, even from Ohio and Indiana. The heavy freights make them costly here, although purchased at low prices. The market may be put down as overstocked with potatoes, and sales dull. We notice the first arrival of Bermudas, consisting of 190 bbls., which were put out at $6 50, and are retailing at $7 per bbl. Another cargo of 1,500 bbls. are daily expected.

With these potatoes came 200 boxes of tomatoes, which were sold at $1 50 per box—retailing at $1 75 to $2.

Apples are a little firmer, though arrivals are fair.

Green peas promise a good supply from the South. Some 60 barrels came on by the steamer which arrived on Monday last.

Butter is unchanged in price, with only a moderate home trade in new, white packages.

Eggs are as abundant and cheap as ever. Philadelphia sent on 300 bbls. yesterday, and 1,200 bbls. were received by the Erie Railroad, making 1,500 bbls., which is about an average number at the present time. As there are some 80 dozen in a barrel, the receipts amount to some 120,000 dozen eggs daily.

Poultry is quiet, with a limited amount in market.

BUSINESS DIRECTORY, TERMS, ETC.

THE AMERICAN FARMERS' MAGAZINE is the result of an earnest desire, on the part of its Editor, to furnish a journal of AGRICULTURE, AND OTHER BRANCHES OF RURAL ECONOMY, of an elevated character, national in its spirit, entertaining, *instructive*, and reliable, at a price somewhat lower than the wealthy and liberal farmer would demand, and such as to bring it fairly within the means of all intelligent family circles.

Its success hitherto confirms our belief that it is what the farmers of this country want, and encourages us to renewed efforts to extend its circulation. The price is $2 a year to single subscribers; $1.50 to clubs of from four to nine; **$1.25 to clubs of from ten to twenty; AND $1 TO CLUBS OF TWENTY AND UPWARDS.**

Clergymen, of all denominations, who cultivate a piece of land, and post-masters, who are also farmers, and desire the work for themselves, are invited to order this work at the lowest club price, $1, payment as in all other cases to be in advance.

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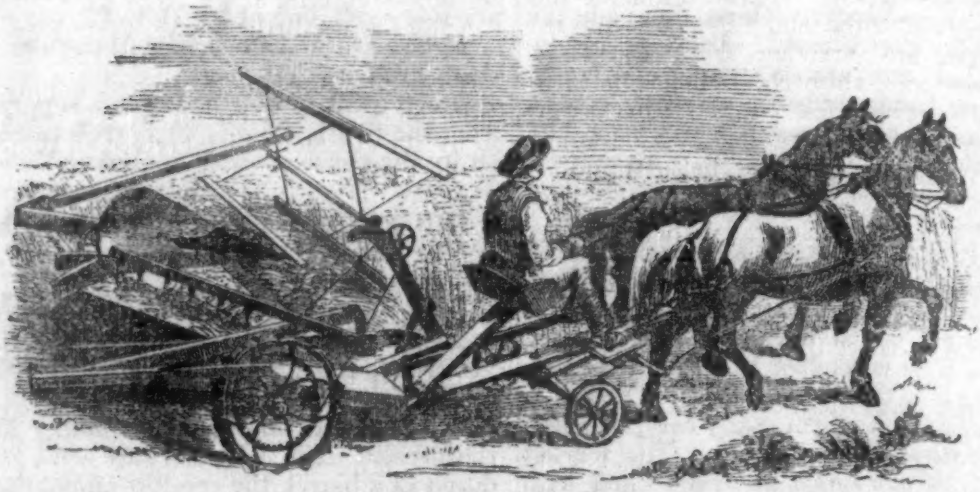

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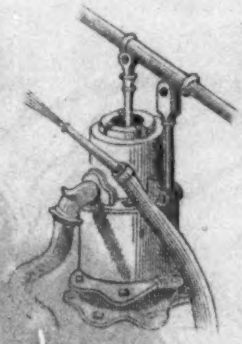

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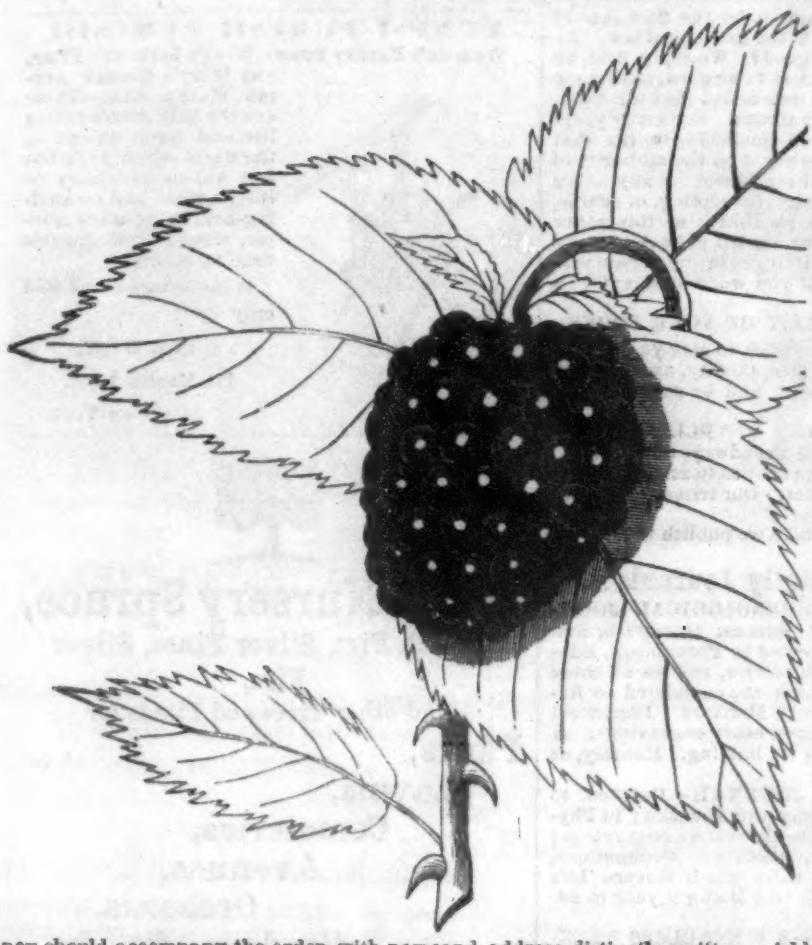

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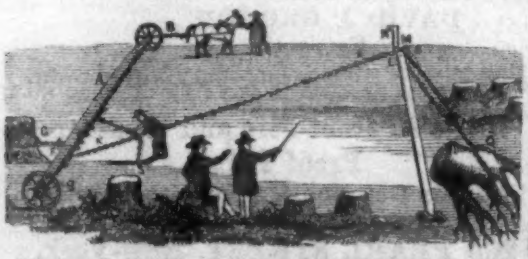

Farmers, Mechanics, Road-Builders, Speculators, and all progressive men, your attention is called to this valuable Patent.

My Stump Machine must go before the Mower and Reaper. It has no equal. It is simple in its construction, easily worked, and not liable to get out of repair. Its common weight is about 1500 lbs. It is easily borne from place to place, and it can be loaded in three minutes, and unloaded, set up, and a lusty stump drawn, all within fifteen minutes. Once fastened, it will pull an acre and half of stumps without changing anchorage. A single yoke of cattle, or one strong horse, is sufficient to work it. With such a team, if necessary, a power of from three to five hundred tons can be made to bear upon a single stump!

One man can work it, though two work it at better advantage. The time required to extract stumps from six inches to four feet in diameter will vary from two to ten minutes. With this Machine, standing trees may be taken out, and large rocks removed from their beds; and it is the best Machine ever invented, not only for pulling stumps, but for moving buildings, and other heavy bodies. All the iron used is wrought, of peculiar quality, imported, sustaining 57 tons to the inch!

The price of these Machines varies according to weight and size—the weight of the largest being about 1500 lbs. For the purpose of transportation, it can be boxed up, with the exception of the lever and wheels, in a box ten feet long and about fifteen inches square. I reside at Orange, Massachusetts, where I manufacture this article on a large scale, and hold myself ready to furnish it, or sell rights to use it, in any State or town in the Union, now unsold, on terms most reasonable.

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